General Disclaimer

One or more of the Following Statements may affect this Document

- This document has been reproduced from the best copy furnished by the organizational source. It is being released in the interest of making available as much information as possible.

- This document may contain data, which exceeds the sheet parameters. It was furnished in this condition by the organizational source and is the best copy available.

- This document may contain tone-on-tone or color graphs, charts and/or pictures, which have been reproduced in black and white.

- This document is paginated as submitted by the original source.

- Portions of this document are not fully legible due to the historical nature of some of the material. However, it is the best reproduction available from the original submission.

Produced by the NASA Center for Aerospace Information (CASI)

NASA CR-134994
FR-7033

(NASA-CR-134994) SINGLE-STAGE EXPERIMENTAL EVALUATION OF LOW ASPECT RATIO, HIGHLY LOADED BLADING FOR COMPRESSORS. PART 9: STAGE F AND STAGE G. VOLUME 2: DATA SUPPLEMENT Final Report (Pratt and Whitney
N76-23262
HC $8.00
Unclas
G3/07 26934



SINGLE-STAGE EXPERIMENTAL EVALUATION OF LOW ASPECT RATIO, HIGHLY LOADED BLADING FOR COMPRESSORS

PART IX - FINAL REPORT, STAGE F AND STAGE G

VOLUME II - DATA SUPPLEMENT

by J. G. Cheatham, J. D. Smith, and D. L. Wright

PRATT & WHITNEY AIRCRAFT
DIVISION OF UNITED TECHNOLOGIES CORPORATION
FLORIDA RESEARCH AND DEVELOPMENT CENTER

Prepared for
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

NASA Lewis Research Center
Contract NAS3-11158



1. Report No.	2. Government Accession No.	3. Recipient's Catalog No.
NASA CR-134994		

4. Title and Subtitle	5. Report Date
"SINGLE-STAGE EXPERIMENTAL EVALUATION OF LOW ASPECT RATIO, HIGHLY LOADED BLADING FOR COMPRESSORS", PART IX FINAL REPORT, STAGE F AND STAGE G, VOLUME II, DATA SUPPLEMENT	May 1976
	6. Performing Organization Code

7. Author(s)	8. Performing Organization Report No.
J. G. Cheatham, J. D. Smith and D. L. Wright	PWA FR 7033
	10. Work Unit No.

9. Performing Organization Name and Address	11. Contract or Grant No.
Pratt & Whitney Aircraft Division of United Technologies Corporation Florida Research and Development Center West Palm Beach, Florida 33402	NAS3-11158
	13. Type of Report and Period Covered
12. Sponsoring Agency Name and Address	Contractor Report
National Aeronautics and Space Administration Washington, D. C. 20546	14. Sponsoring Agency Code

15. Supplementary Notes

Project Manager, Dr. Wojciech Rostafinski, Fluid System Components Division, NASA-Lewis Research Center, Cleveland, Ohio 44135

16. Abstract

Two single-stage, 0.77 hub/tip ratio axial-flow compressors were tested to evaluate the effectiveness of low aspect ratio blading as a means of obtaining higher stage loadings. One compressor, designated Stage F, was comprised of circular arc blading with an aspect ratio of 0.9 for both the rotor and stator. This compressor was tested with uniform inlet flow, hub radial, tip radial, and 180° arc circumferential inlet distortion. The second compressor, designated Stage G, was comprised of multiple circular arc blading with an aspect ratio of 1.0 for both the rotor and stator. This compressor was tested with uniform inlet flow only. Design rotor tip speeds for Rotor F and Rotor G were 285 m/sec (934 ft/sec) and 327 m/sec (1074 ft/sec) respectively.

Both stages operated at high loading levels with adequate efficiency and operating range. The peak efficiencies and corresponding average stage diffusion factors for Stages F and G at design rotor speed were 86.4% and 84.1% and 0.59 and 0.55, respectively. The surge margin at peak efficiency for Stage F was 12.6% and the corresponding value for Stage G was 16.5%. Both stages experienced a loss in efficiency with increasing rotor speed; however, the multiple circular arc rotor delayed the characteristic loss in efficiency with increasing Mach number to higher Mach number.

Imposition of hub radial, tip radial, and circumferential distortion decreased, did not change, and increased Stage F surge flow, respectively; while stage surge pressure ratio remained relatively unchanged. Both radial distortions were substantially attenuated by the compressor but the circumferential distortion was only slightly attenuated at the walls.

17. Key Words (Suggested by Author(s))	18. Distribution Statement
Compressor Low Aspect Ratio Highly Loaded Blading	Unclassified - unlimited

19. Security Classif. (of this report)	20. Security Classif. (of this page)	21. No. of Pages	22. Price
Unclassified	Unclassified	235	$3.00

FOREWORD

This report contains the tabulated airfoil coordinates and performance data for NASA CR-134994 (PWA FR-7033) titled "Single Stage Experimental Evaluation of Low Aspect Ratio, Highly Loaded Blading for Compressors - Part IX - Final Report, Stage F and Stage G." The design, test equipment and procedures, calculation methods, and test results are discussed in CR-134993, Volume I. The tabulations presented herein are itemized in the table of contents.

CONTENTS

	PAGE
APPENDIX A - Stage F and Stage G Airfoil Coordinates	1
APPENDIX B - Stage F Blade Element and Overall Performance Data	24
APPENDIX C - Stage G Blade Element and Overall Performance Data	175

ILLUSTRATIONS

FIGURE		PAGE
A-1	Stage F Airfoil Section Coordinate Definitions	2
A-2	Stage G Airfoil Section Coordinate Definitions	11

TABLES

TABLE		PAGE
A-1	Rotor F Airfoil Section Coordinates in Turbomachine Orientation - SI (Metric) Units	3
A-2	Rotor F Airfoil Section Coordinates in Turbomachine Orientation - U. S. Customary Units	5
A-3	Stator F Airfoil Section Coordinates in Turbomachine Orientation - SI (Metric) Units	7
A-4	Stator F Airfoil Section Coordinates in Turbomachine Orientation - U. S. Customary Units	9
A-5	Rotor G Airfoil Section Coordinates - SI (Metric) Units	12
A-6	Rotor G Airfoil Section Coordinates - U. S. Customary Units	15
A-7	Stator G Airfoil Section Coordinates - SI (Metric) Units	18
A-8	Stator G Airfoil Section Coordinates - U. S. Customary Units	21
B-1	Summary of Stage F Overall Performance - Uniform Inlet Flow	26
B-2	Stage F Blade Element Performance - Uniform Inlet-Untranslated	27
B-3	Stage F Blade Element Performance - Uniform Inlet - SI (Metric) Units	29
B-4	Stage F Blade Element Performance - Uniform Inlet - U. S. Customary Units.	59
B-5	Summary of Stage F Overall Performance - Hub and Tip Radial Distortion	89
B-6	Stage F Blade Element Performance - Hub Radial Distortion - SI (Metric) Units	90

TABLES (Continued)

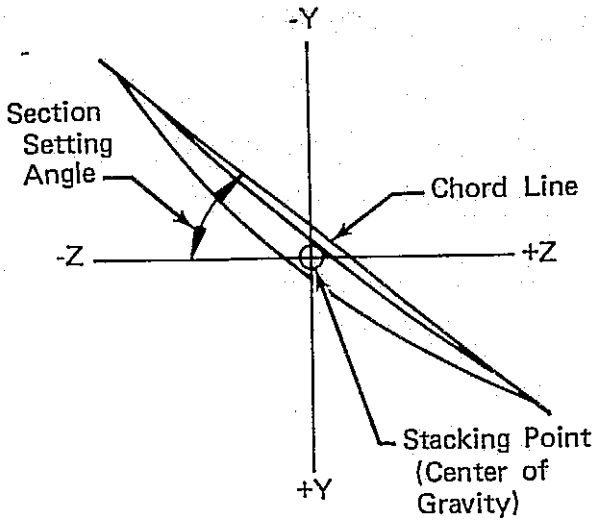
TABLE		PAGE
B-7	Stage F Blade Element Performance - Hub Radial Distortion - U. S. Customary Units	99
B-8	Stage F Blade Element Performance - Tip Radial Distortion - SI (Metric) Units	108
B-9	Stage F Blade Element Performance - Tip Radial Distortion - U. S. Customary Units	117
B-10	Summary of Stage F Overall Performance - Circumferential Distortion	126
B-11	Stage F Blade Element Performance - Circumferential Distortion - SI (Metric) Units	127
B-12	Stage F Blade Element Performance - Circumferential Distortion - U. S. Customary Units	151
C-1	Summary of Stage G Overall Performance - Uniform Inlet Flow	176
C-2	Stage G Blade Element Performance - Uniform Inlet - Untranslated	177
C-3	Stage G Blade Element Performance - Uniform Inlet - SI (Metric) Units	179
C-4	Stage G Blade Element Performance - Uniform Inlet - U. S. Customary Units	205

APPENDIX A

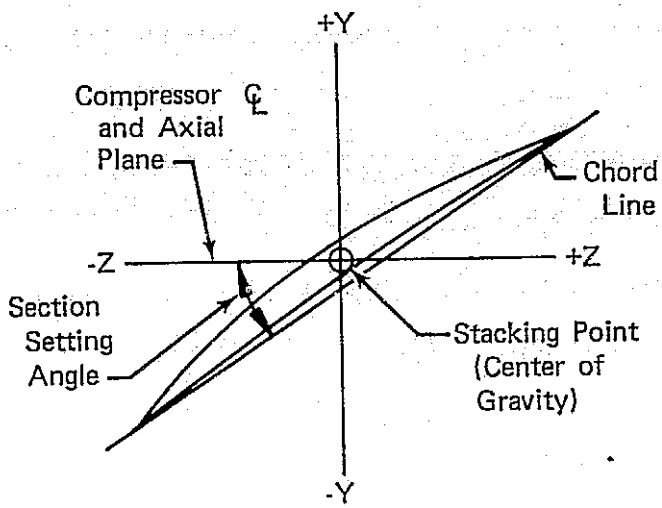
STAGE F AND STAGE G AIRFOIL COORDINATES

Rotor F and Stator F coordinates are presented for eleven airfoil cross sections in tables A-1 and A-3 in SI (metric) units and in tables A-2 and A-4 in U.S. Customary units. These coordinates are in turbomachine orientation as shown in figure A-1.

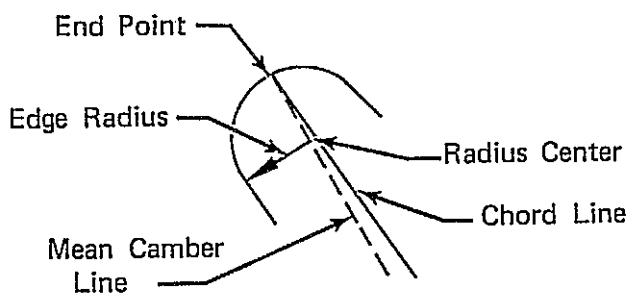
Rotor G and Stator G coordinates are presented for nine airfoil cross sections in tables A-5 and A-7 in SI (metric) units and in tables A-6 and A-8 in U.S. Customary units. These coordinates are not in turbomachine orientation but a chord angle and stacking point coordinates are given to permit orientation of the cross section relative to an engine centerline. Definition of the nomenclature used in tables A-5 through A-8 is presented in figure A-2.



Rotor F Stacking Configuration



Stator F Stacking Configuration



Nomenclature for Typical View
of Airfoil Edge Radius

Definitions

LE - Leading Edge
LER - Leading Edge Radius, cm (in.)
TE - Trailing Edge
TER - Trailing Edge Radius, cm (in.)
XCUT - Radial Distance from Compressor Centerline to Airfoil Section, cm (in.)
Y - Ordinate Distance, cm (in.)
Z - Abscissa (Axial) Distance, cm (in.)

Figure A-1. Stage F Airfoil Section Coordinate Definitions FD 97760

Table A-1. Rotor F Airfoil Section Coordinates in Turbomachine Orientation – SI (Metric) Units

Number of Blades = 31.0

Axial Location of Stacking Line in Compressor = 53.574 cm

Section 1 for XCut of 27.574 cm
Section Setting Angle = 57.711 deg

Fract. of Surf.	Suction Surface Z (cm)	Suction Surface Y (cm)	Pressure Surface Z (cm)	Pressure Surface Y (cm)
0.0	-2.4813	-2.3228	-2.4554	-2.3353
0.05	-2.3386	-2.0010	-2.2837	-2.0401
0.12	-2.1092	-1.5664	-2.0221	-1.6416
0.20	-1.8077	-1.0940	-1.6952	-1.2075
0.30	-1.3744	-0.5451	-1.2456	-0.7008
0.40	-0.8776	-0.0526	-0.7490	-0.2413
0.50	-0.3145	0.3673	-0.2007	0.1572
0.60	0.3208	0.6901	0.4064	0.4724
0.70	1.0300	0.8827	1.0805	0.6739
0.80	1.8133	0.9032	1.8263	0.7219
0.88	2.4854	0.7650	2.4747	0.6190
0.95	3.0968	0.5118	3.0757	0.4046
1.00	3.5395	0.2474	3.5209	0.1715
L.E. Circle Center			-2.4679	-2.3284
T.E. Circle Center			3.5291	.2098

LER = 0.0163 TER = 0.0584
CHORD = 6.5659

Section 2 for XCut of 27.320 cm
Section Setting Angle = 69.868 deg

Fract. of Surf.	Suction Surface Z (cm)	Suction Surface Y (cm)	Pressure Surface Z (cm)	Pressure Surface Y (cm)
0.0	-2.4181	-2.3249	-2.3924	-2.3391
0.05	-2.2670	-2.0122	-2.2106	-2.0551
0.12	-2.0292	-1.5900	-1.9383	-1.6711
0.20	-1.7221	-1.1313	-1.6038	-1.2520
0.30	-1.2888	-0.5977	-1.1516	-0.7597
0.40	-0.8021	-0.1146	-0.6622	-0.3078
0.50	-0.2609	0.3063	-0.1323	0.0947
0.60	0.3373	0.6490	0.4422	0.4333
0.70	0.9947	0.8893	1.0671	0.6861
0.80	1.7107	0.9972	1.7473	0.8245
0.88	2.3216	0.9644	2.3322	0.8293
0.95	2.8771	0.8334	2.8722	0.7396
1.00	3.2812	0.6744	3.2718	0.6144
L.E. Circle Center			-2.4049	-2.3310
T.E. Circle Center			3.2753	.6444

LER = 0.0155 TER = 0.0483
CHORD = 6.4567

Section 3 for XCut of 26.797 cm
Section Setting Angle = 83.287 deg

Fract. of Surf.	Suction Surface Z (cm)	Suction Surface Y (cm)	Pressure Surface Z (cm)	Pressure Surface Y (cm)
0.0	-2.3691	-2.2766	-2.3434	-2.2929
0.05	-2.2047	-1.9759	-2.1453	-2.0241
0.12	-1.9512	-1.5702	-1.8534	-1.6604
0.20	-1.6294	-1.1295	-1.5006	-1.2626
0.30	-1.1834	-0.6170	-1.0328	-0.7932
0.40	-0.6929	-0.1506	-0.5370	-0.3571
0.50	-0.1618	0.2642	-0.0142	0.0424
0.60	0.4077	0.6210	0.5352	0.4001
0.70	1.0140	0.9096	1.1130	0.7066
0.80	1.6561	1.1168	1.7211	0.9497
0.88	2.1935	1.2121	2.2309	1.0871
0.95	2.6789	1.2352	2.6939	1.1567
1.00	3.0323	1.2136	3.0340	1.1730
L.E. Circle Center			-2.3556	-2.2837
T.E. Circle Center			3.0320	1.1930

LER = 0.0152 TER = 0.0419
CHORD = 6.4465

Section 4 for XCut of 26.035 cm
Section Setting Angle = 86.233 deg

Fract. of Surf.	Suction Surface Z (cm)	Suction Surface Y (cm)	Pressure Surface Z (cm)	Pressure Surface Y (cm)
0.0	-2.4150	-2.2258	-2.3899	-2.2428
0.05	-2.2423	-1.9307	-2.1806	-1.9837
0.12	-1.9774	-1.5324	-1.8743	-1.6330
0.20	-1.6441	-1.1011	-1.5067	-1.2494
0.30	-1.1849	-0.6012	-1.0229	-0.7976
0.40	-0.6825	-0.1481	-0.5133	-0.3772
0.50	-0.1415	0.2543	0.0201	0.0099
0.60	0.4343	0.6038	0.5761	0.3627
0.70	1.0447	0.9004	1.1585	0.6822
0.80	1.6835	1.1412	1.7625	0.9649
0.88	2.2093	1.2893	2.2588	1.1610
0.95	2.6772	1.3846	2.7008	1.3086
1.00	3.0119	1.4308	3.0180	1.3983
L.E. Circle Center			-2.4018	-2.2332
T.E. Circle Center			3.0137	1.4143

LER = 0.0152 TER = 0.0292
CHORD = 6.5608

Section 5 for XCut of 24.219 cm
Section Setting Angle = 75.822 deg

Fract. of Surf.	Suction Surface Z (cm)	Suction Surface Y (cm)	Pressure Surface Z (cm)	Pressure Surface Y (cm)
0.0	-2.5735	-2.0970	-2.5464	-2.1161
0.05	-2.3940	-1.7993	-2.3238	-1.8641
0.12	-2.1148	-1.4008	-1.9972	-1.5258
0.20	-1.7590	-0.9741	-1.6030	-1.1603
0.30	-1.2634	-0.4884	-1.0820	-0.7366
0.40	-0.7191	-0.0610	-0.5334	-0.3513
0.50	-0.1336	0.3056	0.0394	-0.0046
0.60	0.4849	0.6088	0.6330	0.3033
0.70	1.1290	0.8484	1.2438	0.5723
0.80	1.7920	1.0236	1.8687	0.8031
0.88	2.3310	1.1179	2.3769	0.9606
0.95	2.8075	1.1676	2.8275	1.0798
1.00	3.1486	1.1844	3.1516	1.1537
L.E. Circle Center			-2.5590	-2.1052
T.E. Circle Center			3.1486	1.1689

LER = 0.0163 TER = 0.0229
CHORD = 6.6116

Section 6 for XCut of 22.860 cm
Section Setting Angle = 61.354 deg

Fract. of Surf.	Suction Surface Z (cm)	Suction Surface Y (cm)	Pressure Surface Z (cm)	Pressure Surface Y (cm)
0.0	-2.7427	-1.9604	-2.7120	-1.9827
0.05	-2.5578	-1.6574	-2.4816	-1.7330
0.12	-2.2664	-1.2550	-2.1410	-1.4016
0.20	-1.8900	-0.8301	-1.7270	-1.0493
0.30	-1.3607	-0.3584	-1.1765	-0.6513
0.40	-0.7755	0.0414	-0.5936	-0.3023
0.50	-0.1453	0.3645	0.0165	-0.0036
0.60	0.5187	0.6076	0.6490	0.2438
0.70	1.2065	0.7686	1.2984	0.4397
0.80	1.9073	0.8466	1.9606	0.5834
0.88	2.4709	0.8486	2.4966	0.6612
0.95	2.9616	0.8070	2.9682	0.7021
1.00	3.3089	0.7526	3.3058	0.7160
L.E. Circle Center			-2.7262	-1.9700
T.E. Circle Center			3.3053	.7343

LER = 0.0188 TER = 0.0178
CHORD = 6.6472

ORIGINAL PAGE IS
OF POOR QUALITY

Table A-1. Rotor F Airfoil Section Coordinates in Turbomachine Orientation – SI (Metric) Units (Continued)

Number of Blades = 31.0

Axial Location of Stacking Line in Compressor = 53.574 cm

Section 7 for XCut of 22.009 cm
Section Setting Angle = 48.847 deg

Fract. of Surf.	Suction Surface Z (cm)	Suction Surface Y (cm)	Pressure Surface Z (cm)	Pressure Surface Y (cm)
0.0	-2.8758	-1.8471	-2.8433	-1.8707
0.05	-2.6881	-1.5370	-2.6091	-1.6198
0.12	-2.3879	-1.1280	-2.2598	-1.2893
0.20	-1.9947	-0.7015	-1.8318	-0.9439
0.30	-1.4364	-0.2395	-1.2586	-0.5641
0.40	-0.8169	0.1361	-0.6490	-0.2451
0.50	-0.1504	0.4194	-0.0102	0.0109
0.60	0.5489	0.6055	0.6505	0.2019
0.70	1.2670	0.6922	1.3269	0.3272
0.80	1.9898	0.6774	2.0117	0.3856
0.88	2.5621	0.5926	2.5613	0.3838
0.95	3.0521	0.4663	3.0409	0.3472
1.00	3.3932	0.3452	3.3810	0.3332
L.E. Circle Center			-2.8583	-1.8572
T.E. Circle Center			3.3848	.3238

LER = 0.0201 TER = 0.0152
CHORD = 6.6548

Section 8 for XCut of 21.488 cm
Section Setting Angle = 38.232 deg

Fract. of Surf.	Suction Surface Z (cm)	Suction Surface Y (cm)	Pressure Surface Z (cm)	Pressure Surface Y (cm)
0.0	-2.9848	-1.7536	-2.9507	-1.7780
0.05	-2.7963	-1.4359	-2.7153	-1.5232
0.12	-2.4895	-1.0193	-2.3607	-1.1905
0.20	-2.0823	-0.5898	-1.9228	-0.8479
0.30	-1.4996	-0.1344	-1.3317	-0.4806
0.40	-0.8509	0.2210	-0.7008	-0.1854
0.50	-0.1537	0.4686	-0.0394	0.0340
0.60	0.5735	0.6040	0.6434	0.1753
0.70	1.3132	0.6236	1.3381	0.2362
0.80	2.0472	0.5255	2.0350	0.2156
0.88	2.6180	0.3627	2.5883	0.1405
0.95	3.0968	0.1613	3.0650	0.0320
1.00	3.4239	-0.0142	3.3990	-0.0688
L.E. Circle Center			-2.9665	-1.7640
T.E. Circle Center			3.4087	- .0404

LER = 0.0208 TER = 0.0165
CHORD = 6.6548

Section 9 for XCut of 21.171 cm
Section Setting Angle = 29.426 deg

Fract. of Surf.	Suction Surface Z (cm)	Suction Surface Y (cm)	Pressure Surface Z (cm)	Pressure Surface Y (cm)
0.0	-3.0754	-1.6967	-3.0396	-1.7211
0.05	-2.8908	-1.3686	-2.8077	-1.4580
0.12	-2.5839	-0.9380	-2.4541	-1.1151
0.20	-2.1676	-0.4968	-2.0107	-0.7650
0.30	-1.5624	-0.0386	-1.4046	-0.3990
0.40	-0.8842	0.3033	-0.7531	-0.1194
0.50	-0.1570	0.5204	-0.0693	0.0699
0.60	0.5966	0.6086	0.6337	0.1654
0.70	1.3543	0.5644	1.3432	0.1646
0.80	2.0932	0.3863	2.0455	0.0673
0.88	2.6548	0.1509	2.5938	-0.0785
0.95	3.1143	-0.1166	3.0579	-0.2525
1.00	3.4209	-0.3376	3.3785	-0.4011
L.E. Circle Center			-3.0561	-1.7069
T.E. Circle Center			3.3965	- .3670

LER = 0.0213 TER = 0.0203
CHORD = 6.6497

Section 10 for XCut of 20.955 cm
Section Setting Angle = 21.290 deg

Fract. of Surf.	Suction Surface Z (cm)	Suction Surface Y (cm)	Pressure Surface Z (cm)	Pressure Surface Y (cm)
0.0	-3.1585	-1.6680	-3.1217	-1.6969
0.05	-2.9825	-1.3241	-2.8974	-1.4133
0.12	-2.6792	-0.8712	-2.5481	-1.0513
0.20	-2.2550	-0.4102	-2.1006	-0.6853
0.30	-1.6256	0.0584	-1.4785	-0.3124
0.40	-0.9147	0.3912	-0.8034	-0.0429
0.50	-0.1532	0.5794	-0.0940	0.1179
0.60	0.6297	0.6187	0.6320	0.1666
0.70	1.4064	0.5065	1.3564	0.1008
0.80	2.1478	0.2428	2.0615	-0.0780
0.88	2.6952	-0.0683	2.5997	-0.2969
0.95	3.1288	-0.4003	3.0455	-0.5364
1.00	3.4100	-0.6627	3.3472	-0.7295
L.E. Circle Center			-3.1389	-1.6774
T.E. Circle Center			3.3754	- .6932

LER = 0.0213 TER = 0.0305
CHORD = 6.6548

Section 11 for XCut of 20.701 cm
Section Setting Angle = 8.631 deg

Fract. of Surf.	Suction Surface Z (cm)	Suction Surface Y (cm)	Pressure Surface Z (cm)	Pressure Surface Y (cm)
0.0	-3.2875	-1.6525	-3.2497	-1.6713
0.05	-3.1300	-1.2758	-3.0422	-1.3622
0.12	-2.8367	-0.7775	-2.7036	-0.9591
0.20	-2.4006	-0.2743	-2.2504	-0.5570
0.30	-1.7290	0.2200	-1.5999	-0.1636
0.40	-0.9596	0.5423	-0.8824	0.0942
0.50	-0.1379	0.6840	-0.1267	0.2101
0.60	0.6970	0.6414	0.6396	0.1808
0.70	1.5072	0.4122	1.3901	0.0041
0.80	2.2509	0.0015	2.0973	-0.3139
0.88	2.7694	-0.4379	2.6147	-0.6566
0.95	3.1539	-0.8758	3.0236	-1.0033
1.00	3.3876	-1.2019	3.2893	-1.2664
L.E. Circle Center			-3.2677	-1.6599
T.E. Circle Center			3.3355	-1.2299

LER = 0.0218 TER = 0.0381
CHORD = 6.6980

Table A-2. Rotor F Airfoil Section Coordinates in Turbomachine Orientation – U.S. Customary Units

NUMBER OF BLADES = 31.0 AXIAL LOCATION OF STACKING LINE IN COMPRESSOR = 21.092 IN.

SECTION 1 FOR XCUT OF 10.8560 IN.
SECTION SETTING ANGLE = 22.721

FRACT. OF SURF.	SUCTION SURFACE Z (IN.)	SUCTION SURFACE Y (IN.)	PRESSURE SURFACE Z (IN.)	PRESSURE SURFACE Y (IN.)
0.0	-0.9769	-0.9145	-0.9667	-0.9194
0.05	-0.9207	-0.7878	-0.8991	-0.8032
0.12	-0.8304	-0.6167	-0.7961	-0.6463
0.20	-0.7117	-0.4307	-0.6674	-0.4754
0.30	-0.5411	-0.2146	-0.4904	-0.2759
0.40	-0.3455	-0.0207	-0.2949	-0.0950
0.50	-0.1238	0.1446	-0.0790	0.0619
0.60	0.1261	0.2717	0.1600	0.1860
0.70	0.4055	0.3475	0.4254	0.2653
0.80	0.7139	0.3556	0.7190	0.2842
0.88	0.9785	0.3012	0.9743	0.2437
0.95	1.2192	0.2015	1.2109	0.1593
1.00	1.3935	0.0974	1.3862	0.0675
L.E. CIRCLE CENTER			-0.9716	-0.9167
T.E. CIRCLE CENTER			1.3894	0.0826

LER = 0.0064 TER = 0.0230
CHORD = 2.5850

SECTION 2 FOR XCUT OF 10.7560 IN.
SECTION SETTING ANGLE = 27.507

SUCTION SURFACE Z (IN.)	SUCTION SURFACE Y (IN.)	PRESSURE SURFACE Z (IN.)	PRESSURE SURFACE Y (IN.)
-0.9520	-0.9153	-0.9419	-0.9209
-0.8925	-0.7922	-0.8703	-0.8091
-0.7989	-0.6260	-0.7631	-0.6579
-0.6780	-0.4454	-0.6314	-0.4929
-0.5074	-0.2353	-0.4534	-0.2991
-0.3158	-0.0451	-0.2607	-0.1212
-0.1027	0.1206	-0.0521	0.0373
0.1328	0.2555	0.1741	0.1706
0.3916	0.3501	0.4201	0.2701
0.6735	0.3926	0.6879	0.3246
0.9140	0.3797	0.9182	0.3265
1.1327	0.3281	1.1308	0.2912
1.2918	0.2655	1.2881	0.2419
		-0.9468	-0.9177
		1.2895	0.2537

LER = 0.0061 TER = 0.0190
CHORD = 2.5420

SECTION 3 FOR XCUT OF 10.5500 IN.
SECTION SETTING ANGLE = 32.790.

SUCTION SURFACE Z (IN.)	SUCTION SURFACE Y (IN.)	PRESSURE SURFACE Z (IN.)	PRESSURE SURFACE Y (IN.)
-0.9327	-0.8963	-0.9226	-0.9027
-0.8680	-0.7779	-0.8446	-0.7969
-0.7682	-0.6182	-0.7297	-0.6537
-0.6415	-0.4447	-0.5908	-0.4971
-0.4659	-0.2429	-0.4066	-0.3123
-0.2728	-0.0593	-0.2114	-0.1406
-0.0637	0.1040	-0.0056	0.0167
0.1605	0.2445	0.2107	0.1575
0.3992	0.3581	0.4382	0.2782
0.6520	0.4397	0.6776	0.3739
0.8636	0.4772	0.8783	0.4280
1.0547	0.4863	1.0606	0.4554
1.1938	0.4778	1.1945	0.4618
		-0.9274	-0.8991
		1.1937	0.4697

LER = 0.0060 TER = 0.0165
CHORD = 2.5380

SECTION 4 FOR XCUT OF 10.2500 IN.
SECTION SETTING ANGLE = 33.950

FRACT. OF SURF.	SUCTION SURFACE Z (IN.)	SUCTION SURFACE Y (IN.)	PRESSURE SURFACE Z (IN.)	PRESSURE SURFACE Y (IN.)
0.0	-0.9508	-0.8763	-0.9409	-0.8830
0.05	-0.8828	-0.7601	-0.8585	-0.7810
0.12	-0.7785	-0.6033	-0.7379	-0.6429
0.20	-0.6473	-0.4335	-0.5932	-0.4919
0.30	-0.4665	-0.2367	-0.4027	-0.3140
0.40	-0.2687	-0.0583	-0.2021	-0.1485
0.50	-0.0557	0.1001	0.0079	0.0039
0.60	0.1710	0.2377	0.2268	0.1428
0.70	0.4113	0.3545	0.4561	0.2686
0.80	0.6628	0.4493	0.6939	0.3799
0.88	0.8698	0.5076	0.8893	0.4571
0.95	1.0540	0.5451	1.0633	0.5152
1.00	1.1858	0.5633	1.1882	0.5505
L.E. CIRCLE CENTER			-0.9456	-0.8792
T.E. CIRCLE CENTER			1.1865	0.5568

LER = 0.0060 TER = 0.0115
CHORD = 2.5830

SECTION 5 FOR XCUT OF 9.5350 IN.
SECTION SETTING ANGLE = 29.851

SUCTION SURFACE Z (IN.)	SUCTION SURFACE Y (IN.)	PRESSURE SURFACE Z (IN.)	PRESSURE SURFACE Y (IN.)
-1.0132	-0.8256	-1.0025	-0.8331
-0.9425	-0.7084	-0.9149	-0.7339
-0.8326	-0.5515	-0.7863	-0.6007
-0.6925	-0.3835	-0.6311	-0.4568
-0.4974	-0.1923	-0.4260	-0.2900
-0.2831	-0.0240	-0.2100	-0.1383
-0.0526	0.1203	0.0155	-0.0018
0.1909	0.2397	0.2492	0.1194
0.4445	0.3340	0.4897	0.2253
0.7055	0.4030	0.7357	0.3162
0.9177	0.4401	0.9358	0.3782
1.1053	0.4597	1.1132	0.4251
1.2396	0.4663	1.2408	0.4542
		-1.0075	-0.8288
		1.2396	0.4602

LER = 0.0064 TER = 0.0090
CHORD = 2.6030

SECTION 6 FOR XCUT OF 9.0000 IN.
SECTION SETTING ANGLE = 24.155

SUCTION SURFACE Z (IN.)	SUCTION SURFACE Y (IN.)	PRESSURE SURFACE Z (IN.)	PRESSURE SURFACE Y (IN.)
-1.0798	-0.7718	-1.0677	-0.7806
-1.0070	-0.6525	-0.9770	-0.6823
-0.8923	-0.4941	-0.8429	-0.5518
-0.7441	-0.3268	-0.6799	-0.4131
-0.5357	-0.1411	-0.4632	-0.2564
-0.3053	0.0163	-0.2337	-0.1190
-0.0572	0.1435	0.0065	-0.0014
0.2042	0.2392	0.2555	0.0960
0.4750	0.3026	0.5112	0.1731
0.7509	0.3333	0.7719	0.2297
0.9728	0.3341	0.9829	0.2603
1.1660	0.3177	1.1686	0.2764
1.3027	0.2963	1.3015	0.2819
		-1.0733	-0.7756
		1.3013	0.2891

LER = 0.0074 TER = 0.0070
CHORD = 2.6170

Table A-2. Rotor F Airfoil Section Coordinates in Turbomachine Orientation - U.S. Customary Units (Continued)

NUMBER OF BLADES = 31.0 AXIAL LOCATION OF STACKING LINE IN COMPRESSOR = 21.092 IN.

SECTION 7 FOR XCUT OF 8.6650 IN.
SECTION SETTING ANGLE = 19.231

FRACT. OF SURF.	SUCTION SURFACE Z (IN.)	SUCTION SURFACE Y (IN.)	PRESSURE SURFACE Z (IN.)	PRESSURE SURFACE Y (IN.)
0.0	-1.1322	-0.7272	-1.1194	-0.7365
0.05	-1.0583	-0.6051	-1.0272	-0.6377
0.12	-0.9401	-0.4441	-0.8897	-0.5076
0.20	-0.7853	-0.2762	-0.7212	-0.3716
0.30	-0.5655	-0.0943	-0.4955	-0.2221
0.40	-0.3216	0.0536	-0.2555	-0.0965
0.50	-0.0592	0.1651	-0.0040	0.0043
0.60	0.2161	0.2384	0.2561	0.0795
0.70	0.4988	0.2725	0.5224	0.1288
0.80	0.7834	0.2667	0.7920	0.1518
0.88	1.0087	0.2333	1.0084	0.1511
0.95	1.2016	0.1832	1.1972	0.1367
1.00	1.3359	0.1359	1.3311	0.1185
L.E. CIRCLE CENTER			-1.1253	-0.7312
T.E. CIRCLE CENTER			1.3326	0.1275

LER = 0.0079 TER = 0.0060
CHORD = 2.6200

SECTION 8 FOR XCUT OF 8.4600 IN.
SECTION SETTING ANGLE = 15.052

SUCTION SURFACE Z (IN.)	SUCTION SURFACE Y (IN.)	PRESSURE SURFACE Z (IN.)	PRESSURE SURFACE Y (IN.)
-1.1751	-0.6904	-1.1617	-0.7000
-1.1009	-0.5653	-1.0690	-0.5997
-0.9801	-0.4013	-0.9294	-0.4687
-0.8198	-0.2322	-0.7570	-0.3338
-0.5904	-0.0529	-0.5243	-0.1892
-0.3350	0.0870	-0.2759	-0.0730
-0.0605	0.1845	-0.0155	0.0134
0.2258	0.2378	0.2533	0.0690
0.5176	0.2455	0.5268	0.0930
0.8060	0.2069	0.8012	0.0849
1.0307	0.1428	1.0190	0.0553
1.2192	0.0635	1.2067	0.0126
1.3480	-0.0056	1.3382	-0.0271
		-1.1679	-0.6945
		1.3420	-0.0159

LER = 0.0082 TER = 0.0065
CHORD = 2.6200

SECTION 9 FOR XCUT OF 8.3350 IN.
SECTION SETTING ANGLE = 11.585

SUCTION SURFACE Z (IN.)	SUCTION SURFACE Y (IN.)	PRESSURE SURFACE Z (IN.)	PRESSURE SURFACE Y (IN.)
-1.2108	-0.6680	-1.1967	-0.6776
-1.1361	-0.5388	-1.1054	-0.5740
-1.0173	-0.3693	-0.9662	-0.4390
-0.8534	-0.1956	-0.7916	-0.3012
-0.6151	-0.0152	-0.5530	-0.1571
-0.3481	0.1194	-0.2965	-0.0470
-0.0618	0.2049	-0.0273	0.0275
0.2349	0.2396	0.2495	0.0651
0.5332	0.2222	0.5288	0.0648
0.8241	0.1521	0.8053	0.0265
1.0452	0.0594	1.0212	-0.0309
1.2261	-0.0459	1.2039	-0.0994
1.3468	-0.1329	1.3301	-0.1579
		-1.2032	-0.6720
		1.3372	-0.1445

LER = 0.0084 TER = 0.0080
CHORD = 2.6180

SECTION 10 FOR XCUT OF 8.2500 IN.
SECTION SETTING ANGLE = 8.382

FRACT. OF SURF.	SUCTION SURFACE Z (IN.)	SUCTION SURFACE Y (IN.)	PRESSURE SURFACE Z (IN.)	PRESSURE SURFACE Y (IN.)
0.0	-1.2435	-0.6567	-1.2290	-0.6657
0.05	-1.1742	-0.5213	-1.1407	-0.5564
0.12	-1.0546	-0.3430	-1.0032	-0.4139
0.20	-0.8878	-0.1615	-0.8270	-0.2698
0.30	-0.6400	0.0230	-0.5821	-0.1230
0.40	-0.3601	0.1540	-0.3163	-0.0169
0.50	-0.0603	0.2281	-0.0370	0.0464
0.60	0.2479	0.2436	0.2488	0.0656
0.70	0.5537	0.1994	0.5340	0.0397
0.80	0.8456	0.0956	0.8116	-0.0507
0.88	1.0611	-0.0269	1.0235	-0.1169
0.95	1.2318	-0.1576	1.1990	-0.2112
1.00	1.3425	-0.2609	1.3178	-0.2872
L.E. CIRCLE CENTER			-1.2358	-0.6604
T.E. CIRCLE CENTER			1.3269	-0.2729

LER = 0.0084 TER = 0.0120
CHORD = 2.6200

SECTION 11 FOR XCUT OF 8.1500 IN.
SECTION SETTING ANGLE = 3.398

SUCTION SURFACE Z (IN.)	SUCTION SURFACE Y (IN.)	PRESSURE SURFACE Z (IN.)	PRESSURE SURFACE Y (IN.)
-1.2943	-0.6506	-1.2794	-0.6560
-1.2323	-0.5623	-1.1977	-0.5363
-1.1168	-0.3661	-1.0644	-0.3776
-0.9451	-0.1080	-0.8860	-0.2193
-0.6807	0.0866	-0.6299	-0.0644
-0.3778	0.2135	-0.3474	0.0371
-0.0543	0.2693	-0.0499	0.0827
0.2744	0.2525	0.2518	0.0712
0.5934	0.1623	0.5473	0.0016
0.8862	0.0006	0.8257	-0.1236
1.0903	-0.1724	1.0294	-0.2585
1.2417	-0.3448	1.1904	-0.3950
1.3337	-0.4732	1.2950	-0.4986
		-1.2865	-0.6535
		1.3132	-0.4842

LER = 0.0086 TER = 0.0150
CHORD = 2.6370

Table A-3. Stator F Airfoil Section Coordinates in Turbomachine Orientation - SI (Metric) Units

Number of Blades = 36.0

Axial Location of Stacking Line in Compressor = 60.140

Section 1 for XCut of 26.731 cm
Section Setting Angle = 97.394 deg

Fract. of Surf.	Suction Surface Z (cm)	Suction Surface Y (cm)	Pressure Surface Z (cm)	Pressure Surface Y (cm)
0.0	-1.8606	-2.2222	-1.8059	-2.2451
0.05	-1.7838	-1.9172	-1.6688	-1.9858
0.12	-1.6325	-1.5093	-1.4519	-1.6380
0.20	-1.4046	-1.0711	-1.1727	-1.2611
0.30	-1.0500	-0.5659	-0.7833	-0.8181
0.40	-0.6284	-0.1080	-0.3546	-0.4041
0.50	-0.1488	0.3033	0.1100	-0.0160
0.60	0.3823	0.6690	0.6083	0.3475
0.70	0.9601	0.9891	1.1392	0.6861
0.80	1.5801	1.2611	1.7023	0.9970
0.88	2.1031	1.4402	2.1760	1.2220
0.95	2.5766	1.5641	2.6065	1.3967
1.00	2.9220	1.6312	2.9228	1.5062
L.E. Circle Center			-1.8316	-2.2301
T.E. Circle Center			2.9180	1.5687

LER = 0.0279 TER = 0.0584
CHORD = 6.1747

Section 2 for XCut of 26.477 cm
Section Setting Angle = 88.974 deg

Suction Surface Z (cm)	Suction Surface Y (cm)	Pressure Surface Z (cm)	Pressure Surface Y (cm)
-2.0244	-2.0742	-1.9787	-2.0970
-1.9213	-1.7831	-1.8214	-1.8537
-1.7404	-1.3942	-1.5812	-1.5276
-1.4869	-0.9782	-1.2809	-1.1753
-1.1095	-0.5024	-0.8722	-0.7650
-0.6739	-0.0782	-0.4308	-0.3868
-0.1885	0.2931	0.0401	-0.0391
0.3401	0.6119	0.5377	0.2791
0.9058	0.8771	1.0607	0.5685
1.5037	1.0874	1.6078	0.8273
2.0010	1.2139	2.0625	1.0104
2.4470	1.2913	2.4719	1.1504
2.7699	1.3259	2.7706	1.2370
		-2.0000	-2.0828
		2.7661	1.2814

LER = 0.0208 TER = 0.0330
CHORD = 5.9030

Section 3 for XCut of 26.035 cm
Section Setting Angle = 78.293 deg

Suction Surface Z (cm)	Suction Surface Y (cm)	Pressure Surface Z (cm)	Pressure Surface Y (cm)
-2.1529	-1.9035	-2.1151	-1.9258
-2.0246	-1.6261	-1.9385	-1.6970
-1.8138	-1.2555	-1.6749	-1.3907
-1.5329	-0.8606	-1.3526	-1.0615
-1.1286	-0.4133	-0.9208	-0.6820
-0.6718	-0.0224	-0.4610	-0.3393
-0.1727	0.3086	0.0226	-0.0333
0.3612	0.5771	0.5268	0.2362
0.9225	0.7816	1.0488	0.4694
1.5042	0.9210	1.5862	0.6662
1.9792	0.9848	2.0259	0.7973
2.3988	1.0053	2.4168	0.8918
2.6990	0.9995	2.6990	0.9474
		-2.1326	-1.9124
		2.6962	.9733

LER = 0.1969 TER = 0.0254
CHORD = 5.6744

Section 4 for XCut of 25.400 cm
Section Setting Angle = 69.662 deg

Fract. of Surf.	Suction Surface Z (cm)	Suction Surface Y (cm)	Pressure Surface Z (cm)	Pressure Surface Y (cm)
0.0	-2.2489	-1.8001	-2.2169	-1.8214
0.05	-2.1054	-1.5311	-2.0290	-1.6007
0.12	-1.8760	-1.1725	-1.7513	-1.3061
0.20	-1.5766	-0.7912	-1.4140	-0.9906
0.30	-1.1519	-0.3625	-0.9655	-0.6297
0.40	-0.6779	0.0079	-0.4895	-0.3073
0.50	-0.1613	0.3147	0.0130	-0.0241
0.60	0.3962	0.5580	0.5405	0.2200
0.70	0.9804	0.7310	1.0864	0.4229
0.80	1.5801	0.8316	1.6454	0.5832
0.88	2.0625	0.8575	2.0968	0.6792
0.95	2.4813	0.8400	2.4928	0.7396
1.00	2.7777	0.8052	2.7760	0.7696
L.E. Circle Center			-2.2316	-1.8090
T.E. Circle Center			2.7747	.7874

LER = 0.0168 TER = 0.0203
CHORD = 5.6769

Section 5 for XCut of 24.219 cm
Section Setting Angle = 63.363 deg

Suction Surface Z (cm)	Suction Surface Y (cm)	Pressure Surface Z (cm)	Pressure Surface Y (cm)
-2.3482	-1.7021	-2.3236	-1.7203
-2.1872	-1.4450	-2.1224	-1.5103
-1.9360	-1.1026	-1.8270	-1.2299
-1.6147	-0.7394	-1.4714	-0.9301
-1.1664	-0.3322	-1.0018	-0.5883
-0.6731	0.0173	-0.5077	-0.2842
-0.1425	0.3043	0.0074	-0.0203
0.4178	0.5248	0.5408	0.2027
1.0003	0.6756	1.0894	0.3830
1.5966	0.7549	1.6502	0.5199
2.0785	0.7656	2.1054	0.5979
2.5006	0.7371	2.5085	0.6434
2.7998	0.6947	2.7978	0.6622
		-2.3350	-1.7099
		2.7970	.6784

LER = 0.0163 TER = 0.0178
CHORD = 5.6921

Section 6 for XCut of 22.860 cm
Section Setting Angle = 61.062 deg

Suction Surface Z (cm)	Suction Surface Y (cm)	Pressure Surface Z (cm)	Pressure Surface Y (cm)
-2.3919	-1.6713	-2.3680	-1.6899
-2.2238	-1.4186	-2.1633	-1.4806
-1.9627	-1.0820	-1.8633	-1.2017
-1.6320	-0.7252	-1.5022	-0.9035
-1.1737	-0.3261	-1.0254	-0.5646
-0.6718	0.0155	-0.5232	-0.2652
-0.1331	0.2946	0.0008	-0.0069
0.4343	0.5075	0.5433	0.2088
1.0229	0.6518	1.1011	0.3805
1.6243	0.7257	1.6703	0.5080
2.1090	0.7333	2.1318	0.5779
2.5319	0.7028	2.5385	0.6154
2.8318	0.6594	2.8296	0.6287
		-2.3792	-1.6794
		2.8293	.6441

LER = 0.0163 TER = 0.0160
CHORD = 5.7328

Table A-3. Stator F Airfoil Section Coordinates in Turbomachine Orientation – SI (Metric) Units (Continued)

Number of Blades = 36.0

Axial Location of Stacking Line in Compressor = 60.140

Section 7 for XCut of 22.009 cm
Section Setting Angle = 61.625

Section 8 for XCut of 21.425 cm
Section Setting Angle = 67.625

Section 9 for XCut of 21.133 cm
Section Setting Angle = 76.952

Fract. of Surf.	Suction Surface Z (cm)	Suction Surface Y (cm)	Pressure Surface Z (cm)	Pressure Surface Y (cm)	Suction Surface Z (cm)	Suction Surface Y (cm)	Pressure Surface Z (cm)	Pressure Surface Y (cm)	Suction Surface Z (cm)	Suction Surface Y (cm)	Pressure Surface Z (cm)	Pressure Surface Y (cm)
0.0	-2.3904	-1.7132	-2.3655	-1.7310	-2.3056	-1.8730	-2.2763	-1.8898	-2.1781	-2.0508	-2.1438	-2.0655
0.05	-2.2248	-1.4572	-2.1656	-1.5151	-2.1575	-1.6073	-2.0935	-1.6586	-2.0462	-1.7810	-1.9766	-1.8258
0.12	-1.9685	-1.1151	-1.8712	-1.2266	-1.9251	-1.2466	-1.8222	-1.3454	-1.8395	-1.4100	-1.7290	-1.4963
0.20	-1.6413	-0.7508	-1.5151	-0.9174	-1.6236	-0.8557	-1.4900	-1.0056	-1.5697	-0.9995	-1.4254	-1.1321
0.30	-1.1857	-0.3421	-1.0417	-0.5662	-1.1938	-0.4089	-1.0409	-0.6142	-1.1793	-0.5174	-1.0122	-0.7021
0.40	-0.6833	0.0079	-0.5400	-0.2565	-0.7084	-0.0208	-0.5563	-0.2664	-0.7292	-0.0841	-0.5598	-0.3101
0.50	-0.1420	0.2931	-0.0135	0.0084	-0.1753	0.2987	-0.0391	0.0310	-0.2217	0.2842	-0.0686	0.0338
0.60	0.4300	0.5098	0.5334	0.2266	0.3962	0.5423	0.5055	0.2741	0.3348	0.5751	0.4590	0.3205
0.70	1.0236	0.6548	1.0970	0.3970	0.9949	0.7066	1.0716	0.4602	0.9286	0.7808	1.0165	0.5441
0.80	1.6302	0.7269	1.6726	0.5189	1.6093	0.7899	1.6533	0.5888	1.5458	0.8981	1.5969	0.7021
0.88	2.1189	0.7318	2.1389	0.5814	2.1052	0.7988	2.1255	0.6505	2.0475	0.9286	2.0721	0.7805
0.95	2.5448	0.6977	2.5497	0.6106	2.5375	0.7648	2.5415	0.6746	2.4864	0.9101	2.4920	0.8148
1.00	2.8466	0.6515	2.8435	0.6170	2.9133	0.7168	2.8390	0.6751	2.7976	0.8715	2.7930	0.8199
L.E. Circle Center			-2.3769	-1.7208			-2.2903	-1.8801			-2.1603	-2.0569
T.E. Circle Center			2.8435	.6345			2.8395	.6960			2.7935	.8461

LER = 0.0160 TER = 0.0178
CHORD = 5.7607

LER = 0.0206 TER = 0.0185
CHORD = 5.7785

LER = 0.0231 TER = 0.0267
CHORD = 5.7861

Section 10 for XCut of 20.955 cm
Section Setting Angle = 87.991

Section 11 for XCut of 20.701 cm
Section Setting Angle = 113.762

Fract. of Surf.	Suction Surface Z (cm)	Suction Surface Y (cm)	Pressure Surface Z (cm)	Pressure Surface Y (cm)	Suction Surface Z (cm)	Suction Surface Y (cm)	Pressure Surface Z (cm)	Pressure Surface Y (cm)
0.0	-2.0429	-2.2088	-2.0043	-2.2217	-1.7475	-2.5166	-1.6990	-2.5253
0.05	-1.9243	-1.9403	-1.8491	-1.9789	-1.6523	-2.2573	-1.5657	-2.2847
0.12	-1.7396	-1.5667	-1.6218	-1.6419	-1.5093	-1.8890	-1.3762	-1.9428
0.20	-1.4996	-1.1460	-1.3449	-1.2626	-1.3299	-1.4590	-1.1537	-1.5448
0.30	-1.1509	-0.6383	-0.9693	-0.8039	-1.0711	-0.9114	-0.8583	-1.0384
0.40	-0.7419	-0.1661	-0.5547	-0.3726	-0.7579	-0.3660	-0.5311	-0.5316
0.50	-0.2700	0.2507	-0.0975	0.0178	-0.3754	0.1527	-0.1588	-0.0427
0.60	0.2598	0.5949	0.4023	0.3546	0.0810	0.6177	0.2672	0.4082
0.70	0.8369	0.8545	0.9406	0.6274	0.6045	1.0091	0.7475	0.8024
0.80	1.4463	1.0239	1.5093	0.8313	1.1806	1.3167	1.2748	1.1295
0.88	1.9469	1.0950	1.9794	0.9441	1.6673	1.5027	1.7326	1.3414
0.95	2.3881	1.1115	2.3980	1.0063	2.1041	1.6251	2.1280	1.4917
1.00	2.7021	1.0983	2.6990	1.0310	2.4196	1.6927	2.4227	1.5806
L.E. Circle Center			-2.0231	-2.2139			-1.7229	-2.5189
T.E. Circle Center			2.6985	1.0648			2.4188	1.6365

LER = 0.0241 TER = 0.0445
CHORD = 5.8014

LER = 0.0267 TER = 0.0622
CHORD = 5.9487

Table A-4. Stator F Airfoil Section Coordinates in Turbomachine Orientation - U.S. Customary Units

NUMBER OF BLADES = 36.0 AXIAL LOCATION OF STACKING LINE IN COMPRESSOR = 23.677 IN.

SECTION 1 FOR XCUT OF 10.5240 IN.
SECTION SETTING ANGLE = 38.344

FRACT. OF SURF.	SUCTION SURFACE Z (IN.)	SUCTION SURFACE Y (IN.)	PRESSURE SURFACE Z (IN.)	PRESSURE SURFACE Y (IN.)
0.0	-0.7325	-0.8749	-0.7110	-0.8839
0.05	-0.7023	-0.7546	-0.6570	-0.7818
0.12	-0.6427	-0.5942	-0.5716	-0.6449
0.20	-0.5530	-0.4217	-0.4617	-0.4965
0.30	-0.4134	-0.2228	-0.3084	-0.3221
0.40	-0.2474	-0.0425	-0.1396	-0.1591
0.50	-0.0586	0.1194	0.0433	-0.0063
0.60	0.1505	0.2634	0.2395	0.1368
0.70	0.3780	0.3894	0.4485	0.2701
0.80	0.6221	0.4965	0.6702	0.3925
0.88	0.8280	0.5670	0.8567	0.4811
0.95	1.0144	0.6158	1.0262	0.5499
1.00	1.1504	0.6422	1.1507	0.5930

L.E. CIRCLE CENTER -0.7211 -0.8760
T.E. CIRCLE CENTER 1.1488 0.6176
LER = 0.0110 TER = 0.0230
CHORD = 2.4310

SECTION 2 FOR XCUT OF 10.4240 IN.
SECTION SETTING ANGLE = 35.029

SUCTION SURFACE Z (IN.)	SUCTION SURFACE Y (IN.)	PRESSURE SURFACE Z (IN.)	PRESSURE SURFACE Y (IN.)
-0.7970	-0.8166	-0.7790	-0.8256
-0.7564	-0.7020	-0.7171	-0.7298
-0.6852	-0.5489	-0.6225	-0.6014
-0.5854	-0.3851	-0.5043	-0.4627
-0.4368	-0.1978	-0.3434	-0.3012
-0.2653	-0.0308	-0.1696	-0.1523
-0.0742	0.1154	0.0158	-0.0154
0.1339	0.2409	0.2117	0.1099
0.3566	0.3453	0.4176	0.2238
0.5920	0.4281	0.6330	0.3257
0.7878	0.4779	0.8120	0.3978
0.9634	0.5084	0.9732	0.4529
1.0905	0.5220	1.0908	0.4870

-0.7874 -0.8200
1.0890 0.5045
LER = 0.0082 TER = 0.0130
CHORD = 2.3240

SECTION 3 FOR XCUT OF 10.2500 IN.
SECTION SETTING ANGLE = 30.824

SUCTION SURFACE Z (IN.)	SUCTION SURFACE Y (IN.)	PRESSURE SURFACE Z (IN.)	PRESSURE SURFACE Y (IN.)
-0.8476	-0.7494	-0.8327	-0.7582
-0.7971	-0.6402	-0.7632	-0.6681
-0.7141	-0.4943	-0.6594	-0.5475
-0.6035	-0.3388	-0.5325	-0.4179
-0.4441	-0.1627	-0.3625	-0.2685
-0.2645	-0.0068	-0.1615	-0.1336
-0.0680	0.1215	0.0089	-0.0131
0.1422	0.2272	0.2074	0.0930
0.3632	0.3077	0.4129	0.1848
0.5922	0.3626	0.6245	0.2623
0.7792	0.3877	0.7976	0.3139
0.9464	0.3958	0.9515	0.3511
1.0626	0.3935	1.0626	0.3730

-0.8396 -0.7529
1.0615 0.3832
LER = 0.0775 TER = 0.0100
CHORD = 2.2340

SECTION 4 FOR XCUT OF 10.0000 IN.
SECTION SETTING ANGLE = 27.426

FRACT. OF SURF.	SUCTION SURFACE Z (IN.)	SUCTION SURFACE Y (IN.)	PRESSURE SURFACE Z (IN.)	PRESSURE SURFACE Y (IN.)
0.0	-0.8854	-0.7087	-0.6728	-0.7171
0.05	-0.8289	-0.6028	-0.7988	-0.6302
0.12	-0.7386	-0.4616	-0.6895	-0.5142
0.20	-0.6207	-0.3115	-0.5567	-0.3900
0.30	-0.4535	-0.1427	-0.3801	-0.2479
0.40	-0.2669	0.0031	-0.1927	-0.1210
0.50	-0.0635	0.1239	0.0051	-0.0095
0.60	0.1960	0.2197	0.2128	0.0866
0.70	0.3860	0.2878	0.4277	0.1665
0.80	0.6221	0.3274	0.6478	0.2296
0.88	0.8120	0.3376	0.8255	0.2674
0.95	0.9769	0.3307	0.9814	0.2912
1.00	1.0936	0.3170	1.0929	0.3030

L.E. CIRCLE CENTER -0.8786 -0.7122
T.E. CIRCLE CENTER 1.0924 0.3100
LER = 0.0066 TER = 0.0080
CHORD = 2.2350

SECTION 5 FOR XCUT OF 9.5350 IN.
SECTION SETTING ANGLE = 24.946

SUCTION SURFACE Z (IN.)	SUCTION SURFACE Y (IN.)	PRESSURE SURFACE Z (IN.)	PRESSURE SURFACE Y (IN.)
-0.9245	-0.6701	-0.9148	-0.6773
-0.8611	-0.5689	-0.8356	-0.5946
-0.7622	-0.4341	-0.7193	-0.4842
-0.6357	-0.2911	-0.5793	-0.3662
-0.4592	-0.1308	-0.3944	-0.2316
-0.2650	0.0068	-0.1999	-0.1119
-0.0561	0.1198	0.0029	-0.0080
0.1645	0.2066	0.2129	0.0798
0.3938	0.2660	0.4289	0.1508
0.6280	0.2972	0.6497	0.2047
0.8183	0.3014	0.8289	0.2354
0.9845	0.2902	0.9876	0.2533
1.1023	0.2735	1.1015	0.2607

-0.9193 -0.6732
1.1012 0.2671
LER = 0.0064 TER = 0.0070
CHORD = 2.2410

SECTION 6 FOR XCUT OF 9.0000 IN.
SECTION SETTING ANGLE = 24.040

SUCTION SURFACE Z (IN.)	SUCTION SURFACE Y (IN.)	PRESSURE SURFACE Z (IN.)	PRESSURE SURFACE Y (IN.)
-0.9417	-0.6581	-0.9323	-0.6653
-0.8753	-0.5585	-0.8517	-0.5829
-0.7727	-0.4260	-0.7336	-0.4731
-0.6425	-0.2855	-0.5914	-0.3557
-0.4621	-0.1284	-0.4037	-0.2223
-0.2645	0.0061	-0.2060	-0.1044
-0.0524	0.1160	0.0003	-0.0027
0.1710	0.1998	0.2139	0.0822
0.4027	0.2566	0.4335	0.1498
0.6395	0.2857	0.6576	0.2000
0.8303	0.2887	0.8393	0.2275
0.9968	0.2767	0.9994	0.2423
1.1149	0.2596	1.1140	0.2475

-0.9367 -0.6612
1.1139 0.2536
LER = 0.0064 TER = 0.0063
CHORD = 2.2570

ORIGINAL PAGE IS
OF POOR QUALITY

Table A-4. Stator F Airfoil Section Coordinates in Turbomachine Orientation – U.S. Customary Units (Continued)

NUMBER OF BLADES = 36.0 AXIAL LOCATION OF STACKING LINE IN COMPRESSOR = 23.677 IN.

SECTION 7 FOR XCUT OF 8.6650 IN.
SECTION SETTING ANGLE = 24.262

FRACT. OF SURF.	SUCTION SURFACE Z (IN.)	SUCTION SURFACE Y (IN.)	PRESSURE SURFACE Z (IN.)	PRESSURE SURFACE Y (IN.)
0.0	-0.9411	-0.6745	-0.9313	-0.6815
0.05	-0.8759	-0.5737	-0.8526	-0.5965
0.12	-0.7750	-0.4390	-0.7367	-0.4829
0.20	-0.6462	-0.2956	-0.5965	-0.3612
0.30	-0.4668	-0.1347	-0.4101	-0.2229
0.40	-0.2690	0.0031	-0.2126	-0.1010
0.50	-0.0559	0.1154	-0.0053	0.0033
0.60	0.1693	0.2007	0.2100	0.0892
0.70	0.4030	0.2578	0.4319	0.1563
0.80	0.6418	0.2862	0.6585	0.2043
0.88	0.8342	0.2881	0.8421	0.2289
0.95	1.0019	0.2747	1.0038	0.2404
1.00	1.1207	0.2565	1.1195	0.2429
L.E. CIRCLE CENTER			-0.9358	-0.6775
T.E. CIRCLE CENTER			1.1195	0.2498

LER = 0.0063 TER = 0.0070
CHORD = 2.2680

SECTION 8 FOR XCUT OF 8.4350 IN.
SECTION SETTING ANGLE = 26.624

SUCTION SURFACE Z (IN.)	SUCTION SURFACE Y (IN.)	PRESSURE SURFACE Z (IN.)	PRESSURE SURFACE Y (IN.)
-0.9077	-0.7374	-0.8962	-0.7440
-0.8494	-0.6328	-0.8242	-0.6530
-0.7579	-0.4908	-0.7174	-0.5297
-0.6392	-0.3369	-0.5866	-0.3959
-0.4700	-0.1610	-0.4098	-0.2418
-0.2789	-0.0082	-0.2190	-0.1049
-0.0690	0.1176	-0.0154	0.0122
0.1560	0.2135	0.1990	0.1079
0.3917	0.2782	0.4219	0.1812
0.6336	0.3110	0.6509	0.2318
0.8288	0.3145	0.8368	0.2561
0.9990	0.3011	1.0006	0.2656
1.1194	0.2822	1.1177	0.2658
		-0.9017	-0.7402
		1.1179	0.2740

LER = 0.0081 TER = 0.0073
CHORD = 2.2750

SECTION 9 FOR XCUT OF 8.3200 IN.
SECTION SETTING ANGLE = 30.296

SUCTION SURFACE Z (IN.)	SUCTION SURFACE Y (IN.)	PRESSURE SURFACE Z (IN.)	PRESSURE SURFACE Y (IN.)
-0.8575	-0.8074	-0.8440	-0.8132
-0.8056	-0.7012	-0.7782	-0.7188
-0.7242	-0.5551	-0.6807	-0.5891
-0.6180	-0.3935	-0.5612	-0.4457
-0.4643	-0.2037	-0.3985	-0.2764
-0.2871	-0.0331	-0.2204	-0.1221
-0.0873	0.1119	-0.0270	0.0133
0.1318	0.2264	0.1807	0.1262
0.3656	0.3074	0.4002	0.2142
0.6086	0.3536	0.6287	0.2764
0.8061	0.3656	0.8158	0.3073
0.9789	0.3583	0.9811	0.3208
1.1014	0.3431	1.0996	0.3228
		-0.8505	-0.8098
		1.0998	0.3331

LER = 0.0091 TER = 0.0105
CHORD = 2.2780

SECTION 10 FOR XCUT OF 8.2500 IN.
SECTION SETTING ANGLE = 34.642

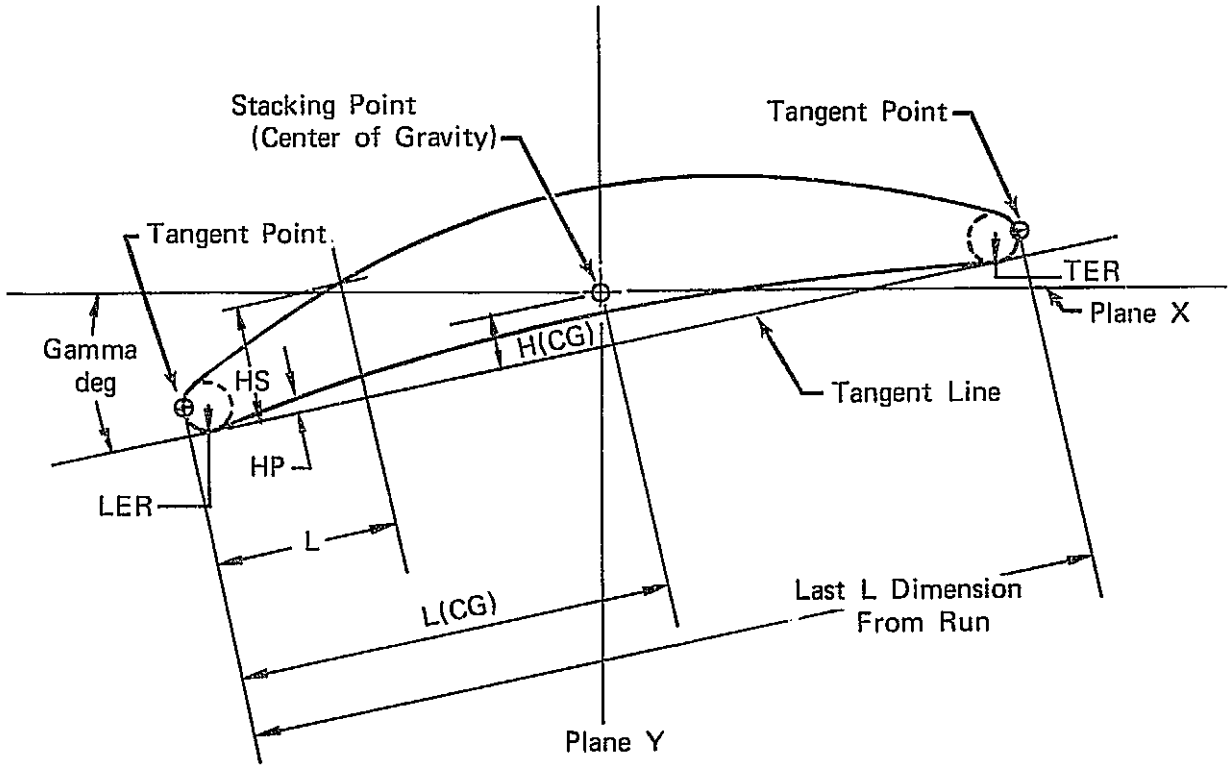
FRACT. OF SURF.	SUCTION SURFACE Z (IN.)	SUCTION SURFACE Y (IN.)	PRESSURE SURFACE Z (IN.)	PRESSURE SURFACE Y (IN.)
0.0	-0.8043	-0.8696	-0.7891	-0.8747
0.05	-0.7576	-0.7639	-0.7280	-0.7791
0.12	-0.6849	-0.6168	-0.6385	-0.6464
0.20	-0.5904	-0.4512	-0.5295	-0.4971
0.30	-0.4531	-0.2513	-0.3816	-0.3165
0.40	-0.2921	-0.0654	-0.2184	-0.1467
0.50	-0.1063	0.0987	-0.0384	0.0070
0.60	0.1023	0.2342	0.1584	0.1396
0.70	0.3295	0.3364	0.3703	0.2470
0.80	0.5694	0.4031	0.5942	0.3273
0.88	0.7665	0.4311	0.7793	0.3717
0.95	0.9402	0.4376	0.9441	0.3962
1.00	1.0638	0.4324	1.0626	0.4059
L.E. CIRCLE CENTER			-0.7965	-0.8716
T.E. CIRCLE CENTER			1.0624	0.4192

LER = 0.0095 TER = 0.0175
CHORD = 2.2840

SECTION 11 FOR XCUT OF 8.1500 IN.
SECTION SETTING ANGLE = 44.788

SUCTION SURFACE Z (IN.)	SUCTION SURFACE Y (IN.)	PRESSURE SURFACE Z (IN.)	PRESSURE SURFACE Y (IN.)
-0.6880	-0.9908	-0.6689	-0.9942
-0.6505	-0.8887	-0.6164	-0.8995
-0.5942	-0.7437	-0.5416	-0.7649
-0.5236	-0.5744	-0.4542	-0.6082
-0.4217	-0.3588	-0.3379	-0.4088
-0.2984	-0.1441	-0.2091	-0.2093
-0.1478	0.0601	-0.0625	-0.0168
0.0319	0.2432	0.1052	0.1607
0.2380	0.3973	0.2943	0.3159
0.4648	0.5184	0.5019	0.4447
0.6564	0.5916	0.6782	0.5281
0.8264	0.6398	0.8378	0.5873
0.9526	0.6664	0.9538	0.6223
		-0.6763	-0.9917
		0.9523	0.6443

LER = 0.0105 TER = 0.0245
CHORD = 2.3420



Definitions

Area - Airfoil Cross Section Area, cm^2 ($in.^2$)
CG - Center of Gravity
CG Coordinates - L(CG) and H(CG), cm (in.)
Gamma - Blade Chord Angle, Degrees from Compressor Centerline (Plane X)
H - Perpendicular Distance from Tangent Line, cm (in.)
HP - H Distance To Airfoil Pressure Surface, cm (in.)
HS - H Distance To Airfoil Suction Surface, cm (in.)
HT - Airfoil Thickness (HS–HP), cm (in.)
L - Distance Along Tangent Line from Leading Edge Tangent Point, cm (in.)
LER - Leading Edge Radius (TI)/2 , cm (in.)
LER Center Coordinates, L(IC) and H(IC) , cm (in.)
Plane X - Abscissa and Compressor Centerline (Axial)
Plane Y - Ordinate
SP - Stacking Point
SP Coordinate, L(SP) and H(SP) , cm (in.)
TER - Trailing Edge Radius, (TO)/2 , cm (in.)
TER Center Coordinates, L(OC) and H(OC) , cm (in.)
TI - Leading Edge Diameter, 2(LER) , cm (in.)
TM - Maximum Airfoil Thickness, cm (in.)
TO - Trailing Edge Diameter, 2(TER) , cm (in.)
X-CUT OF - Radial Distance from Compressor Centerline To Airfoil Section, cm (in.)

Figure A-2. Stage G Airfoil Section Coordinate Definitions FD 97761

Table A-5.
Rotor G Airfoil Section Coordinates
SI (Metric) Units

X-CUTOF, 21.1243

GAMMA	L(OC)	L(IC)	L(CG)	L(SP)
22.0103	5.0549	0.0251	2.9571	2.9571
AREA	H(OC)	H(IC)	H(CG)	H(SP)
1.059	0.0253	0.0251	0.6868	0.6868

TI 0.0503 TM 0.3778 TO 0.0507

L	HS	HP	HT(HS - HP)
0.0	0.0251	0.0251	0.0
0.0251	0.0540	-0.0015	0.0561
0.1273	0.1175	0.0355	0.0819
0.2546	0.1930	0.0807	0.1123
0.3818	0.2654	0.1247	0.1407
0.5091	0.3347	0.1675	0.1672
0.6364	0.4011	0.2093	0.1918
0.7637	0.4646	0.2499	0.2147
0.8910	0.5253	0.2894	0.2359
1.0183	0.5832	0.3277	0.2555
1.1455	0.6385	0.3650	0.2735
1.2728	0.6912	0.4012	0.2900
1.4001	0.7413	0.4363	0.3050
1.5274	0.7889	0.4703	0.3185
1.6547	0.8342	0.5032	0.3310
1.7819	0.8770	0.5355	0.3415
1.9092	0.9180	0.5660	0.3500
2.0365	0.9511	0.5940	0.3572
2.1638	0.9826	0.6191	0.3638
2.2911	1.0086	0.6410	0.3678
2.4183	1.0315	0.6598	0.3717
2.5456	1.0502	0.6756	0.3746
2.6729	1.0650	0.6884	0.3766
2.8002	1.0760	0.6982	0.3777
2.9275	1.0830	0.7051	0.3780
3.0548	1.0865	0.7090	0.3773
3.1820	1.0857	0.7100	0.3758
3.3093	1.0814	0.7080	0.3734
3.4366	1.0731	0.7030	0.3701
3.5639	1.0611	0.6951	0.3660
3.6912	1.0451	0.6842	0.3610
3.8184	1.0252	0.6703	0.3550
3.9457	1.0013	0.6533	0.3480
4.0730	0.9733	0.6333	0.3400
4.2003	0.9411	0.6102	0.3310
4.3276	0.9047	0.5839	0.3208
4.4549	0.8638	0.5545	0.3093
4.5821	0.8184	0.5218	0.2966
4.7094	0.7683	0.4857	0.2825
4.8367	0.7132	0.4463	0.2668
4.9640	0.6530	0.4034	0.2495
5.0913	0.5874	0.3570	0.2304
5.2185	0.5161	0.3068	0.2092
5.3458	0.4386	0.2529	0.1857
5.4731	0.3546	0.1950	0.1598
5.6004	0.2640	0.1331	0.1309
5.7277	0.1656	0.0669	0.0987
5.8549	0.0588	-0.0037	0.0625
5.8803	0.0253	0.0253	0.0

X-CUTOF, 21.4413

GAMMA	L(OC)	L(IC)	L(CG)	L(SP)
23.5358	5.0557	0.0247	2.9544	2.9544
AREA	H(OC)	H(IC)	H(CG)	H(SP)
1.014	0.0249	0.0247	0.6620	0.6620

TI 0.0493 TM 0.3678 TO 0.0498

L	HS	HP	HT(HS - HP)
0.0	0.0247	0.0247	0.0
0.0247	0.0533	-0.0013	0.0547
0.1273	0.1140	0.0341	0.0800
0.2546	0.1866	0.0770	0.1096
0.3819	0.2560	0.1188	0.1372
0.5092	0.3226	0.1596	0.1630
0.6365	0.3863	0.1993	0.1869
0.7638	0.4472	0.2380	0.2092
0.8911	0.5055	0.2756	0.2298
1.0184	0.5611	0.3122	0.2488
1.1457	0.6141	0.3478	0.2663
1.2730	0.6646	0.3823	0.2823
1.4003	0.7126	0.4157	0.2969
1.5276	0.7582	0.4482	0.3100
1.6549	0.8018	0.4797	0.3221
1.7822	0.8428	0.5105	0.3323
1.9095	0.8810	0.5397	0.3413
2.0368	0.9158	0.5676	0.3482
2.1641	0.9464	0.5926	0.3538
2.2913	0.9730	0.6146	0.3584
2.4186	0.9955	0.6334	0.3621
2.5459	1.0141	0.6493	0.3648
2.6732	1.0289	0.6621	0.3667
2.8005	1.0398	0.6721	0.3677
2.9278	1.0469	0.6790	0.3679
3.0551	1.0503	0.6831	0.3672
3.1824	1.0500	0.6842	0.3657
3.3097	1.0459	0.6825	0.3634
3.4370	1.0380	0.6779	0.3602
3.5643	1.0264	0.6703	0.3561
3.6916	1.0110	0.6599	0.3511
3.8189	0.9917	0.6466	0.3452
3.9462	0.9686	0.6303	0.3383
4.0735	0.9414	0.6110	0.3304
4.2008	0.9102	0.5887	0.3215
4.3281	0.8748	0.5634	0.3115
4.4554	0.8351	0.5350	0.3002
4.5827	0.7911	0.5034	0.2877
4.7100	0.7425	0.4686	0.2738
4.8373	0.6891	0.4306	0.2585
4.9646	0.6306	0.3892	0.2416
5.0919	0.5673	0.3443	0.2229
5.2192	0.4982	0.2960	0.2023
5.3465	0.4234	0.2439	0.1795
5.4738	0.3424	0.1881	0.1543
5.6011	0.2548	0.1284	0.1264
5.7284	0.1600	0.0646	0.0953
5.8557	0.0573	-0.0034	0.0607
5.8806	0.0249	0.0249	0.0

X-CUTOF, 21.7498

GAMMA	L(OC)	L(IC)	L(CG)	L(SP)
25.0269	5.0561	0.0242	2.9536	2.9536
AREA	H(OC)	H(IC)	H(CG)	H(SP)
1.568	0.0240	0.0242	0.6102	0.6102

TI 0.0485 TM 0.3596 TO 0.0492

L	HS	HP	HT(HS - HP)
0.0	0.0242	0.0242	0.0
0.0242	0.0518	-0.0010	0.0528
0.1275	0.1075	0.0304	0.0771
0.2547	0.1738	0.0684	0.1055
0.3820	0.2375	0.1054	0.1321
0.5094	0.2986	0.1416	0.1570
0.6367	0.3572	0.1769	0.1803
0.7641	0.4133	0.2113	0.2020
0.8914	0.4669	0.2449	0.2221
1.0188	0.5183	0.2775	0.2407
1.1461	0.5672	0.3093	0.2579
1.2735	0.6139	0.3402	0.2737
1.4008	0.6583	0.3703	0.2881
1.5282	0.7005	0.3994	0.3011
1.6555	0.7407	0.4278	0.3129
1.7829	0.7786	0.4554	0.3232
1.9102	0.8143	0.4820	0.3323
2.0376	0.8480	0.5082	0.3398
2.1649	0.8796	0.5318	0.3458
2.2923	0.9034	0.5530	0.3504
2.4196	0.9254	0.5713	0.3541
2.5470	0.9436	0.5867	0.3568
2.6743	0.9580	0.5993	0.3587
2.8017	0.9688	0.6092	0.3597
2.9290	0.9760	0.6162	0.3598
3.0564	0.9796	0.6205	0.3590
3.1837	0.9795	0.6221	0.3574
3.3111	0.9759	0.6210	0.3550
3.4384	0.9687	0.6171	0.3516
3.5658	0.9580	0.6105	0.3474
3.6931	0.9435	0.6012	0.3423
3.8205	0.9255	0.5892	0.3363
3.9478	0.9036	0.5744	0.3294
4.0752	0.8782	0.5569	0.3214
4.2025	0.8491	0.5365	0.3124
4.3299	0.8157	0.5134	0.3023
4.4572	0.7785	0.4874	0.2910
4.5846	0.7372	0.4586	0.2786
4.7119	0.6916	0.4268	0.2648
4.8393	0.6418	0.3920	0.2496
4.9666	0.5871	0.3542	0.2329
5.0940	0.5271	0.3133	0.2145
5.2213	0.4634	0.2691	0.1943
5.3487	0.3938	0.2217	0.1721
5.4760	0.3187	0.1710	0.1477
5.6034	0.2375	0.1167	0.1208
5.7307	0.1499	0.0589	0.0910
5.8581	0.0555	-0.0027	0.0583
5.8827	0.0246	0.0246	0.0

ORIGINAL PAGE IS
OF POOR QUALITY

Table A-5. (Continued)
Rotor G Airfoil Section Coordinates
SI (Metric) Units

X-CUTOF, 22.3566

GAMMA	L(OC)	L(IC)	L(CG)	L(SP)
30.1310	5.6663	0.0235	2.9506	2.9506
AREA	H(OC)	H(IC)	H(CG)	H(SP)
1.408	0.023e	0.0235	0.5008	0.5008

TI 0.0470 TM 0.3402 TO 0.0473

L	HS	HP	HT(HS - HP)
0.0	0.0235	0.0235	0.0
0.0235	0.0492	-0.0005	0.0497
0.1275	0.0954	0.0235	0.0719
0.2551	0.1502	0.0523	0.0979
0.3827	0.2028	0.0804	0.1224
0.5101	0.2533	0.1079	0.1454
0.6377	0.3019	0.1348	0.1670
0.7652	0.3464	0.1611	0.1873
0.8927	0.3929	0.1867	0.2062
1.0202	0.4355	0.2116	0.2238
1.1478	0.4761	0.2360	0.2401
1.2753	0.5148	0.2597	0.2551
1.4028	0.5516	0.2828	0.2689
1.5303	0.5866	0.3052	0.2814
1.6579	0.6198	0.3271	0.2927
1.7854	0.6511	0.3483	0.3028
1.9129	0.6806	0.3690	0.3118
2.0405	0.7084	0.3890	0.3194
2.1680	0.7348	0.4087	0.3260
2.2955	0.7574	0.4264	0.3310
2.4231	0.7778	0.4430	0.3348
2.5506	0.7965	0.4588	0.3378
2.6781	0.8077	0.4662	0.3395
2.8056	0.8177	0.4771	0.3405
2.9332	0.8264	0.4837	0.3406
3.0607	0.8276	0.4880	0.3398
3.1882	0.8261	0.4899	0.3382
3.3158	0.8252	0.4896	0.3356
3.4433	0.8190	0.4869	0.3322
3.5708	0.8097	0.4819	0.3278
3.6983	0.7972	0.4747	0.3225
3.8259	0.7815	0.4652	0.3164
3.9534	0.7626	0.4534	0.3092
4.0809	0.7404	0.4393	0.3011
4.2085	0.7150	0.4230	0.2920
4.3360	0.6862	0.4044	0.2818
4.4635	0.6541	0.3836	0.2705
4.5910	0.6185	0.3604	0.2581
4.7186	0.5794	0.3350	0.2444
4.8461	0.5367	0.3072	0.2295
4.9736	0.4903	0.2771	0.2132
5.1012	0.4401	0.2446	0.1955
5.2287	0.3861	0.2097	0.1763
5.3562	0.3280	0.1725	0.1555
5.4838	0.2656	0.1328	0.1328
5.6113	0.1989	0.0905	0.1083
5.7388	0.1276	0.0456	0.0817
5.8663	0.0514	-0.0015	0.0529
5.8960	0.0236	0.0236	0.0

X-CUTOF, 23.2364

GAMMA	L(OC)	L(IC)	L(CG)	L(SP)
34.6916	5.6684	0.0218	2.9417	2.9417
AREA	H(OC)	H(IC)	H(CG)	H(SP)
1.341	0.0215	0.0218	0.3968	0.3968

TI 0.0435 TM 0.3144 TO 0.0430

L	HS	HP	HT(HS - HP)
0.0	0.0218	0.0218	0.0
0.0218	0.0449	-0.0002	0.0451
0.1276	0.0824	0.0170	0.0655
0.2551	0.1262	0.0373	0.0889
0.3827	0.1683	0.0572	0.1111
0.5103	0.2088	0.0766	0.1322
0.6379	0.2476	0.0957	0.1519
0.7654	0.2843	0.1143	0.1705
0.8930	0.3204	0.1325	0.1879
1.0206	0.3545	0.1503	0.2042
1.1482	0.3870	0.1677	0.2192
1.2757	0.4179	0.1847	0.2332
1.4033	0.4473	0.2013	0.2460
1.5309	0.4753	0.2175	0.2577
1.6585	0.5017	0.2334	0.2683
1.7860	0.5266	0.2488	0.2778
1.9136	0.5502	0.2639	0.2863
2.0412	0.5723	0.2786	0.2937
2.1688	0.5929	0.2930	0.2999
2.2963	0.6124	0.3070	0.3054
2.4239	0.6301	0.3209	0.3092
2.5515	0.6451	0.3331	0.3121
2.6791	0.6576	0.3437	0.3139
2.8066	0.6671	0.3523	0.3148
2.9342	0.6739	0.3591	0.3148
3.0618	0.6778	0.3639	0.3139
3.1894	0.6790	0.3668	0.3122
3.3169	0.6774	0.3679	0.3095
3.4445	0.6731	0.3671	0.3060
3.5721	0.6660	0.3644	0.3016
3.6997	0.6562	0.3599	0.2963
3.8272	0.6436	0.3535	0.2901
3.9548	0.6282	0.3453	0.2830
4.0824	0.6101	0.3352	0.2749
4.2100	0.5892	0.3233	0.2659
4.3375	0.5655	0.3096	0.2559
4.4651	0.5389	0.2940	0.2449
4.5927	0.5095	0.2766	0.2329
4.7203	0.4771	0.2573	0.2198
4.8478	0.4418	0.2362	0.2056
4.9754	0.4035	0.2132	0.1903
5.1030	0.3621	0.1884	0.1738
5.2306	0.3176	0.1616	0.1560
5.3581	0.2700	0.1330	0.1370
5.4857	0.2190	0.1025	0.1165
5.6133	0.1647	0.0700	0.0947
5.7409	0.1069	0.0356	0.0712
5.8684	0.0455	-0.0006	0.0463
5.8900	0.0215	0.0215	0.0

X-CUTOF, 24.0824

GAMMA	L(OC)	L(IC)	L(CG)	L(SP)
37.9080	5.6496	0.0203	2.9289	2.9289
AREA	H(OC)	H(IC)	H(CG)	H(SP)
1.220	0.0198	0.0203	0.3372	0.3372

TI 0.0406 TM 0.2885 TO 0.0396

L	HS	HP	HT(HS - HP)
0.0	0.0203	0.0203	0.0
0.0203	0.0414	-0.0001	0.0415
0.1272	0.0733	0.0131	0.0602
0.2543	0.1160	0.0286	0.0814
0.3815	0.1453	0.0438	0.1015
0.5087	0.1792	0.0587	0.1205
0.6358	0.2119	0.0733	0.1385
0.7630	0.2432	0.0877	0.1555
0.8902	0.2732	0.1019	0.1713
1.0173	0.3019	0.1157	0.1862
1.1445	0.3294	0.1294	0.2000
1.2717	0.3556	0.1427	0.2128
1.3988	0.3805	0.1559	0.2246
1.5260	0.4041	0.1686	0.2354
1.6532	0.4266	0.1814	0.2452
1.7803	0.4478	0.1938	0.2540
1.9075	0.4678	0.2060	0.2618
2.0346	0.4866	0.2180	0.2686
2.1618	0.5043	0.2296	0.2745
2.2890	0.5208	0.2414	0.2794
2.4161	0.5361	0.2526	0.2833
2.5433	0.5500	0.2642	0.2864
2.6705	0.5633	0.2752	0.2881
2.7976	0.5737	0.2847	0.2889
2.9248	0.5815	0.2927	0.2889
3.0520	0.5868	0.2989	0.2880
3.1791	0.5895	0.3033	0.2862
3.3063	0.5896	0.3059	0.2837
3.4335	0.5871	0.3067	0.2803
3.5606	0.5820	0.3059	0.2761
3.6878	0.5743	0.3032	0.2710
3.8150	0.5641	0.2989	0.2652
3.9421	0.5513	0.2929	0.2584
4.0693	0.5359	0.2851	0.2508
4.1965	0.5180	0.2757	0.2423
4.3236	0.4975	0.2645	0.2329
4.4508	0.4744	0.2517	0.2227
4.5780	0.4487	0.2372	0.2115
4.7051	0.4203	0.2210	0.1993
4.8323	0.3893	0.2032	0.1862
4.9595	0.3557	0.1838	0.1720
5.0866	0.3195	0.1624	0.1569
5.2138	0.2802	0.1395	0.1406
5.3410	0.2382	0.1149	0.1233
5.4681	0.1934	0.0887	0.1048
5.5953	0.1457	0.0607	0.0851
5.7225	0.0950	0.0309	0.0641
5.8496	0.0412	-0.0005	0.0418
5.8694	0.0198	0.0198	0.0

ORIGINAL PAGE IS
OF POOR QUALITY

Table A-5. (Continued)
Rotor G Airfoil Section Coordinates
SI (Metric) Units

X-CUTOF, 24.6983

GAMMA	L(OC)	L(IC)	L(CG)	L(SP)
.2454	5.6686	0.0188	2.9421	2.9421
AREA	H(OC)	H(IC)	H(CG)	H(SP)
1.124	0.0179	0.0188	0.3071	0.3071

TI 0.0377 TM 0.2698 . TO 0.0358

L	HS	HP.	HT(HS - HP)
0.0	0.0188	0.0188	0.0
0.0188	0.0383	-0.0000	0.0383
0.1280	0.0667	0.0111	0.0556
0.2560	0.0990	0.0239	0.0751
0.3840	0.1301	0.0366	0.0935
0.5120	0.1600	0.0491	0.1109
0.6400	0.1884	0.0615	0.1274
0.7680	0.2166	0.0737	0.1429
0.8960	0.2433	0.0858	0.1575
1.0240	0.2688	0.0977	0.1711
1.1520	0.2932	0.1095	0.1837
1.2800	0.3166	0.1211	0.1955
1.4080	0.3389	0.1326	0.2062
1.5360	0.3601	0.1440	0.2161
1.6640	0.3803	0.1553	0.2250
1.7920	0.3995	0.1665	0.2330
1.9200	0.4176	0.1775	0.2401
2.0480	0.4347	0.1885	0.2463
2.1760	0.4509	0.1993	0.2515
2.3040	0.4660	0.2101	0.2559
2.4320	0.4802	0.2208	0.2594
2.5600	0.4936	0.2316	0.2620
2.6880	0.5057	0.2422	0.2636
2.8160	0.5172	0.2526	0.2646
2.9440	0.5267	0.2624	0.2643
3.0720	0.5338	0.2705	0.2633
3.2000	0.5383	0.2768	0.2615
3.3280	0.5403	0.2814	0.2589
3.4560	0.5398	0.2841	0.2557
3.5840	0.5367	0.2850	0.2517
3.7120	0.5312	0.2841	0.2471
3.8400	0.5231	0.2815	0.2417
3.9680	0.5126	0.2771	0.2355
4.0960	0.4995	0.2710	0.2286
4.2240	0.4840	0.2631	0.2209
4.3520	0.4668	0.2535	0.2124
4.4800	0.4452	0.2421	0.2030
4.6080	0.4219	0.2291	0.1928
4.7360	0.3960	0.2142	0.1818
4.8640	0.3675	0.1976	0.1698
4.9920	0.3362	0.1793	0.1570
5.1200	0.3023	0.1592	0.1431
5.2480	0.2655	0.1372	0.1283
5.3760	0.2258	0.1135	0.1124
5.5040	0.1833	0.0878	0.0955
5.6320	0.1377	0.0603	0.0774
5.7600	0.0891	0.0309	0.0582
5.8880	0.0373	-0.0005	0.0377
5.9059	0.0179	0.0179	0.0

X-CUTOF, 25.6894

GAMMA	L(OC)	L(IC)	L(CG)	L(SP)
42.2370	5.8444	0.0177	2.8879	2.8879
AREA	H(OC)	H(IC)	H(CG)	H(SP)
.9979	0.0169	0.0177	0.2959	0.2959

TI 0.0353 TM 0.2407 . TO 0.0338

L	HS	HP.	HT(HS - HP)
0.0	0.0177	0.0177	0.0
0.0177	0.0358	-0.0000	0.0358
0.1271	0.0617	0.0101	0.0517
0.2541	0.0909	0.0217	0.0692
0.3812	0.1191	0.0332	0.0859
0.5082	0.1462	0.0446	0.1017
0.6353	0.1724	0.0558	0.1166
0.7623	0.1976	0.0670	0.1306
0.8894	0.2219	0.0781	0.1438
1.0164	0.2452	0.0891	0.1561
1.1435	0.2676	0.1000	0.1676
1.2705	0.2890	0.1108	0.1782
1.3976	0.3095	0.1216	0.1879
1.5246	0.3291	0.1323	0.1968
1.6517	0.3479	0.1429	0.2049
1.7787	0.3657	0.1535	0.2122
1.9058	0.3827	0.1641	0.2186
2.0328	0.3988	0.1746	0.2242
2.1599	0.4141	0.1850	0.2290
2.2869	0.4285	0.1955	0.2330
2.4140	0.4421	0.2059	0.2362
2.5410	0.4549	0.2163	0.2386
2.6681	0.4670	0.2268	0.2403
2.7951	0.4785	0.2376	0.2408
2.9222	0.4887	0.2482	0.2405
3.0493	0.4986	0.2585	0.2400
3.1763	0.5062	0.2682	0.2380
3.3034	0.5114	0.2763	0.2351
3.4304	0.5142	0.2830	0.2312
3.5575	0.5144	0.2878	0.2266
3.6845	0.5120	0.2909	0.2210
3.8116	0.5070	0.2921	0.2148
3.9386	0.4993	0.2914	0.2079
4.0657	0.4890	0.2887	0.2003
4.1927	0.4761	0.2840	0.1921
4.3198	0.4604	0.2771	0.1833
4.4468	0.4419	0.2680	0.1738
4.5739	0.4205	0.2566	0.1639
4.7009	0.3963	0.2429	0.1534
4.8280	0.3692	0.2267	0.1425
4.9550	0.3389	0.2080	0.1310
5.0821	0.3057	0.1866	0.1191
5.2091	0.2692	0.1626	0.1066
5.3362	0.2294	0.1358	0.0936
5.4632	0.1863	0.1061	0.0802
5.5903	0.1398	0.0735	0.0661
5.7174	0.0894	0.0379	0.0515
5.8444	0.0354	-0.0007	0.0361
5.8613	0.0169	0.0169	0.0

X-CUTOF, 26.4507

GAMMA	L(OC)	L(IC)	L(CG)	L(SP)
44.8101	5.8384	0.0162	2.9091	2.9091
AREA	H(OC)	H(IC)	H(CG)	H(SP)
.9117	0.0154	0.0162	0.2841	0.2841

TI 0.0324 TM 0.2167 . TO 0.0308

L	HS	HP.	HT(HS - HP)
0.0	0.0162	0.0162	0.0
0.0162	0.0326	-0.0000	0.0328
0.1269	0.0571	0.0098	0.0473
0.2538	0.0840	0.0209	0.0631
0.3808	0.1101	0.0320	0.0781
0.5077	0.1352	0.0429	0.0923
0.6346	0.1595	0.0537	0.1058
0.7615	0.1826	0.0644	0.1184
0.8885	0.2053	0.0751	0.1302
1.0154	0.2269	0.0856	0.1413
1.1423	0.2477	0.0961	0.1516
1.2692	0.2676	0.1065	0.1611
1.3961	0.2867	0.1169	0.1699
1.5231	0.3050	0.1272	0.1779
1.6500	0.3225	0.1374	0.1851
1.7769	0.3392	0.1477	0.1915
1.9038	0.3551	0.1579	0.1973
2.0308	0.3703	0.1680	0.2022
2.1577	0.3847	0.1782	0.2065
2.2846	0.3983	0.1884	0.2100
2.4115	0.4113	0.1986	0.2127
2.5384	0.4235	0.2087	0.2148
2.6654	0.4350	0.2190	0.2161
2.7923	0.4458	0.2294	0.2165
2.9192	0.4561	0.2399	0.2162
3.0461	0.4665	0.2507	0.2158
3.1731	0.4757	0.2624	0.2133
3.3000	0.4834	0.2725	0.2109
3.4269	0.4894	0.2813	0.2081
3.5538	0.4926	0.2881	0.2044
3.6807	0.4930	0.2927	0.2002
3.8077	0.4906	0.2951	0.1955
3.9346	0.4854	0.2951	0.1902
4.0615	0.4772	0.2928	0.1844
4.1884	0.4662	0.2882	0.1780
4.3154	0.4522	0.2812	0.1710
4.4423	0.4353	0.2718	0.1634
4.5692	0.4152	0.2600	0.1552
4.6961	0.3921	0.2457	0.1464
4.8230	0.3658	0.2289	0.1369
4.9500	0.3362	0.2095	0.1267
5.0769	0.3034	0.1876	0.1158
5.2038	0.2672	0.1630	0.1042
5.3307	0.2275	0.1358	0.0917
5.4577	0.1842	0.1058	0.0784
5.5846	0.1375	0.0731	0.0642
5.7115	0.0867	0.0376	0.0491
5.8384	0.0322	-0.0007	0.0329
5.8538	0.0154	0.0154	0.0

Table A-6.
Rotor G Airfoil Section Coordinates
U.S. Customary Units

X-CUTOF, 0.3167

GAMMA	L(OC)	L(IC)	L(CG)	L(SP)
22.0141	2.3048	0.0099	1.1636	1.1636
AREA	H(OC)	H(IC)	H(CG)	H(SP)
.2572	0.0100	0.0099	0.2703	0.2703

TI 0.0197 TM 0.1487 TO 0.0199

L	HS	HP	HT(HS - HP)
0.0	0.0099	0.0099	0.0
0.0099	0.0214	-0.0006	0.0220
0.0201	0.0462	0.0139	0.0322
0.1002	0.0759	0.0316	0.0443
0.1503	0.1044	0.0489	0.0556
0.2004	0.1317	0.0657	0.0660
0.2505	0.1579	0.0821	0.0758
0.3006	0.1829	0.0981	0.0848
0.3507	0.2068	0.1136	0.0931
0.4008	0.2296	0.1287	0.1009
0.4509	0.2513	0.1434	0.1079
0.5010	0.2721	0.1577	0.1144
0.5511	0.2918	0.1715	0.1203
0.6012	0.3107	0.1850	0.1257
0.6513	0.3284	0.1982	0.1302
0.7015	0.3452	0.2107	0.1345
0.7516	0.3606	0.2227	0.1380
0.8017	0.3744	0.2338	0.1406
0.8518	0.3866	0.2437	0.1429
0.9019	0.3971	0.2523	0.1448
0.9520	0.4061	0.2597	0.1463
1.0021	0.4136	0.2660	0.1475
1.0522	0.4193	0.2710	0.1483
1.1023	0.4236	0.2749	0.1487
1.1524	0.4264	0.2775	0.1488
1.2025	0.4278	0.2791	0.1486
1.2526	0.4274	0.2795	0.1479
1.3027	0.4257	0.2787	0.1470
1.3528	0.4225	0.2767	0.1457
1.4029	0.4177	0.2736	0.1441
1.4530	0.4114	0.2693	0.1421
1.5031	0.4036	0.2638	0.1398
1.5532	0.3942	0.2572	0.1370
1.6033	0.3832	0.2493	0.1339
1.6534	0.3705	0.2402	0.1303
1.7035	0.3562	0.2299	0.1263
1.7536	0.3400	0.2183	0.1218
1.8037	0.3222	0.2054	0.1168
1.8538	0.3024	0.1912	0.1112
1.9039	0.2808	0.1757	0.1051
1.9540	0.2571	0.1588	0.0983
2.0041	0.2312	0.1405	0.0907
2.0542	0.2032	0.1208	0.0824
2.1044	0.1727	0.0996	0.0731
2.1545	0.1397	0.0768	0.0629
2.2046	0.1039	0.0524	0.0515
2.2547	0.0652	0.0263	0.0389
2.3048	0.0231	-0.0015	0.0246
2.3147	0.0100	0.0100	0.0

X-CUTOF, 0.4415

GAMMA	L(OC)	L(IC)	L(CG)	L(SP)
23.5494	2.3075	0.0098	1.1656	1.1656
AREA	H(OC)	H(IC)	H(CG)	H(SP)
.2499	0.0098	0.0098	0.2610	0.2610

TI 0.0195 TM 0.1448 TO 0.0196

L	HS	HP	HT(HS - HP)
0.0	0.0098	0.0098	0.0
0.0098	0.0211	-0.0006	0.0216
0.0502	0.0449	0.0136	0.0313
0.1003	0.0734	0.0307	0.0427
0.1505	0.1007	0.0474	0.0534
0.2007	0.1269	0.0635	0.0634
0.2508	0.1520	0.0792	0.0728
0.3010	0.1760	0.0944	0.0815
0.3511	0.1989	0.1092	0.0897
0.4013	0.2208	0.1236	0.0972
0.4515	0.2416	0.1375	0.1041
0.5016	0.2615	0.1510	0.1105
0.5518	0.2805	0.1641	0.1164
0.6020	0.2985	0.1768	0.1217
0.6521	0.3155	0.1892	0.1263
0.7023	0.3319	0.2011	0.1308
0.7525	0.3470	0.2127	0.1342
0.8026	0.3606	0.2236	0.1369
0.8528	0.3728	0.2334	0.1392
0.9029	0.3831	0.2421	0.1411
0.9531	0.3920	0.2496	0.1425
1.0033	0.3994	0.2558	0.1436
1.0534	0.4052	0.2608	0.1444
1.1036	0.4096	0.2644	0.1448
1.1538	0.4126	0.2675	0.1448
1.2039	0.4137	0.2691	0.1446
1.2541	0.4136	0.2696	0.1440
1.3043	0.4120	0.2689	0.1431
1.3544	0.4089	0.2671	0.1418
1.4046	0.4043	0.2642	0.1402
1.4548	0.3983	0.2601	0.1382
1.5049	0.3907	0.2548	0.1359
1.5551	0.3816	0.2484	0.1332
1.6052	0.3709	0.2408	0.1301
1.6554	0.3588	0.2320	0.1268
1.7056	0.3447	0.2220	0.1226
1.7557	0.3298	0.2108	0.1182
1.8059	0.3117	0.1984	0.1133
1.8561	0.2925	0.1847	0.1078
1.9062	0.2715	0.1697	0.1018
1.9564	0.2485	0.1536	0.0951
2.0066	0.2235	0.1367	0.0878
2.0567	0.1963	0.1187	0.0798
2.1069	0.1668	0.0991	0.0707
2.1570	0.1349	0.0782	0.0608
2.2072	0.1003	0.0506	0.0497
2.2574	0.0630	0.0255	0.0376
2.3075	0.0225	-0.0014	0.0239
2.3173	0.0098	0.0098	0.0

X-CUTOF, 0.5629

GAMMA	L(OC)	L(IC)	L(CG)	L(SP)
25.8208	2.3055	0.0095	1.1672	1.1672
AREA	H(OC)	H(IC)	H(CG)	H(SP)
.2415	0.0097	0.0095	0.2411	0.2411

TI 0.0189 TM 0.1416 TO 0.0194

L	HS	HP	HT(HS - HP)
0.0	0.0095	0.0095	0.0
0.0095	0.0203	-0.0004	0.0207
0.0501	0.0423	0.0125	0.0298
0.1002	0.0684	0.0280	0.0405
0.1504	0.0935	0.0431	0.0504
0.2005	0.1176	0.0578	0.0598
0.2506	0.1407	0.0720	0.0687
0.3007	0.1628	0.0858	0.0769
0.3508	0.1839	0.0992	0.0847
0.4010	0.2041	0.1122	0.0919
0.4511	0.2234	0.1247	0.0987
0.5012	0.2418	0.1368	0.1050
0.5513	0.2593	0.1484	0.1108
0.6014	0.2759	0.1597	0.1162
0.6516	0.2917	0.1706	0.1212
0.7017	0.3068	0.1808	0.1261
0.7518	0.3210	0.1906	0.1300
0.8019	0.3338	0.2005	0.1334
0.8520	0.3455	0.2094	0.1361
0.9021	0.3557	0.2177	0.1380
0.9523	0.3643	0.2249	0.1394
1.0024	0.3715	0.2310	0.1405
1.0525	0.3772	0.2359	0.1412
1.1026	0.3814	0.2398	0.1416
1.1527	0.3842	0.2426	0.1416
1.2029	0.3856	0.2443	0.1413
1.2530	0.3856	0.2449	0.1407
1.3031	0.3842	0.2444	0.1398
1.3532	0.3813	0.2429	0.1384
1.4033	0.3771	0.2403	0.1368
1.4535	0.3714	0.2366	0.1348
1.5036	0.3643	0.2319	0.1324
1.5537	0.3557	0.2261	0.1297
1.6038	0.3457	0.2192	0.1265
1.6539	0.3342	0.2112	0.1230
1.7041	0.3211	0.2021	0.1190
1.7542	0.3064	0.1918	0.1146
1.8043	0.2902	0.1805	0.1097
1.8544	0.2722	0.1680	0.1043
1.9045	0.2526	0.1543	0.0983
1.9547	0.2311	0.1394	0.0917
2.0048	0.2078	0.1233	0.0845
2.0549	0.1824	0.1059	0.0765
2.1050	0.1551	0.0873	0.0678
2.1551	0.1255	0.0673	0.0582
2.2053	0.0935	0.0459	0.0476
2.2554	0.0591	0.0232	0.0359
2.3055	0.0218	-0.0011	0.0229
2.3157	0.0097	0.0097	0.0

Table A-6. (Continued)
Rotor G Airfoil Section Coordinates
U.S. Customary Units

X-CUTOF, 0.0018

GAMMA	L(OC)	L(IC)	L(CG)	L(SP)
30.1308	2.3097	0.0092	1.1616	1.1616
AREA	H(OC)	H(IC)	H(CG)	H(SP)
.2276	0.0093	0.0092	0.1572	0.1572

TI 0.0184 TM 0.1340 TO 0.0186

L	HS	HP	HT(HS - HP)
0.0	0.0092	0.0092	0.0
0.0092	0.0193	-0.0012	0.0195
0.0192	0.0276	0.0092	0.0283
0.1004	0.0591	0.0206	0.0285
0.1506	0.0799	0.0317	0.0482
0.2008	0.0998	0.0425	0.0573
0.2511	0.1188	0.0531	0.0658
0.3013	0.1372	0.0634	0.0738
0.3515	0.1547	0.0735	0.0812
0.4017	0.1715	0.0833	0.0881
0.4519	0.1875	0.0929	0.0946
0.5021	0.2027	0.1023	0.1005
0.5523	0.2172	0.1114	0.1059
0.6025	0.2310	0.1202	0.1108
0.6527	0.2441	0.1288	0.1153
0.7028	0.2564	0.1372	0.1192
0.7532	0.2680	0.1453	0.1227
0.8034	0.2792	0.1532	0.1261
0.8535	0.2894	0.1610	0.1284
0.9037	0.2984	0.1682	0.1302
0.9540	0.3063	0.1744	0.1318
1.0042	0.3128	0.1790	0.1329
1.0544	0.3180	0.1843	0.1337
1.1046	0.3219	0.1879	0.1341
1.1548	0.3246	0.1905	0.1341
1.2050	0.3259	0.1921	0.1338
1.2553	0.3260	0.1929	0.1331
1.3055	0.3249	0.1929	0.1321
1.3557	0.3225	0.1917	0.1308
1.4059	0.3188	0.1897	0.1291
1.4561	0.3139	0.1868	0.1270
1.5063	0.3077	0.1831	0.1246
1.5565	0.3002	0.1785	0.1217
1.6067	0.2915	0.1730	0.1185
1.6569	0.2815	0.1668	0.1149
1.7071	0.2702	0.1597	0.1106
1.7574	0.2575	0.1518	0.1065
1.8076	0.2435	0.1429	0.1016
1.8578	0.2281	0.1329	0.0962
1.9080	0.2113	0.1220	0.0904
1.9582	0.1930	0.1101	0.0840
2.0084	0.1733	0.0973	0.0770
2.0586	0.1520	0.0836	0.0694
2.1088	0.1291	0.0689	0.0612
2.1590	0.1046	0.0523	0.0523
2.2092	0.0783	0.0347	0.0427
2.2595	0.0502	0.0180	0.0322
2.3097	0.0202	-0.0006	0.0208
2.3190	0.0093	0.0093	0.0

X-CUTOF, 0.1482

GAMMA	L(OC)	L(IC)	L(CG)	L(SP)
34.6935	2.3092	0.0086	1.1576	1.1576
AREA	H(OC)	H(IC)	H(CG)	H(SP)
.2077	0.0085	0.0086	0.1562	0.1562

TI 0.0171 TM 0.1238 TO 0.0169

L	HS	HP	HT(HS - HP)
0.0	0.0086	0.0086	0.0
0.0086	0.0177	-0.0001	0.0177
0.0502	0.0324	0.0067	0.0258
0.1004	0.0497	0.0147	0.0350
0.1506	0.0662	0.0225	0.0437
0.2008	0.0821	0.0301	0.0520
0.2510	0.0974	0.0376	0.0598
0.3012	0.1121	0.0450	0.0671
0.3514	0.1261	0.0521	0.0739
0.4016	0.1395	0.0591	0.0803
0.4518	0.1523	0.0660	0.0863
0.5020	0.1644	0.0727	0.0918
0.5522	0.1760	0.0792	0.0968
0.6024	0.1870	0.0856	0.1014
0.6526	0.1974	0.0918	0.1056
0.7028	0.2072	0.0979	0.1094
0.7530	0.2165	0.1038	0.1127
0.8032	0.2252	0.1097	0.1156
0.8534	0.2333	0.1154	0.1180
0.9036	0.2411	0.1208	0.1203
0.9538	0.2480	0.1262	0.1218
1.0040	0.2539	0.1311	0.1228
1.0542	0.2588	0.1352	0.1236
1.1044	0.2626	0.1386	0.1239
1.1546	0.2652	0.1413	0.1239
1.2048	0.2668	0.1432	0.1236
1.2550	0.2673	0.1444	0.1229
1.3052	0.2667	0.1448	0.1219
1.3554	0.2650	0.1445	0.1205
1.4056	0.2622	0.1435	0.1188
1.4558	0.2584	0.1417	0.1167
1.5060	0.2534	0.1392	0.1142
1.5562	0.2474	0.1360	0.1114
1.6064	0.2403	0.1320	0.1082
1.6566	0.2320	0.1273	0.1047
1.7068	0.2227	0.1219	0.1008
1.7570	0.2122	0.1159	0.0964
1.8072	0.2006	0.1089	0.0917
1.8574	0.1879	0.1013	0.0866
1.9076	0.1740	0.0930	0.0810
1.9578	0.1589	0.0840	0.0749
2.0080	0.1426	0.0742	0.0684
2.0582	0.1251	0.0637	0.0614
2.1084	0.1063	0.0524	0.0539
2.1586	0.0863	0.0404	0.0459
2.2088	0.0648	0.0276	0.0373
2.2590	0.0421	0.0140	0.0281
2.3092	0.0179	-0.0003	0.0182
2.3177	0.0085	0.0085	0.0

X-CUTOF, 0.4812

GAMMA	L(OC)	L(IC)	L(CG)	L(SP)
37.9035	2.2160	0.0080	1.1549	1.1549
AREA	H(OC)	H(IC)	H(CG)	H(SP)
.1895	0.0078	0.0080	0.1327	0.1327

TI 0.0159 TM 0.1136 TO 0.0155

L	HS	HP	HT(HS - HP)
0.0	0.0080	0.0080	0.0
0.0080	0.0163	-0.0000	0.0163
0.0582	0.0299	0.0062	0.0237
0.1083	0.0434	0.0113	0.0321
0.1585	0.0573	0.0173	0.0400
0.2087	0.0707	0.0232	0.0475
0.2589	0.0836	0.0290	0.0546
0.3091	0.0959	0.0347	0.0613
0.3593	0.1076	0.0402	0.0676
0.4094	0.1191	0.0457	0.0734
0.4596	0.1299	0.0511	0.0789
0.5097	0.1403	0.0564	0.0839
0.5599	0.1501	0.0615	0.0886
0.6101	0.1594	0.0666	0.0928
0.6603	0.1683	0.0716	0.0966
0.7104	0.1766	0.0765	0.1001
0.7606	0.1845	0.0813	0.1032
0.8108	0.1919	0.0861	0.1058
0.8609	0.1989	0.0907	0.1082
0.9111	0.2055	0.0953	0.1101
0.9613	0.2115	0.1000	0.1115
1.0115	0.2170	0.1044	0.1127
1.0616	0.2221	0.1085	0.1136
1.1118	0.2267	0.1123	0.1138
1.1620	0.2307	0.1154	0.1137
1.2122	0.2342	0.1176	0.1134
1.2623	0.2372	0.1195	0.1127
1.3125	0.2397	0.1208	0.1117
1.3627	0.2417	0.1216	0.1103
1.4128	0.2431	0.1216	0.1086
1.4630	0.2440	0.1211	0.1066
1.5132	0.2444	0.1199	0.1043
1.5634	0.2443	0.1182	0.1016
1.6135	0.2438	0.1161	0.0986
1.6637	0.2427	0.1134	0.0953
1.7139	0.2411	0.1098	0.0916
1.7641	0.2390	0.1056	0.0876
1.8142	0.2364	0.1008	0.0831
1.8644	0.2332	0.0955	0.0784
1.9146	0.2295	0.0898	0.0732
1.9648	0.2253	0.0837	0.0676
2.0149	0.2205	0.0772	0.0617
2.0651	0.2153	0.0704	0.0553
2.1153	0.2096	0.0633	0.0485
2.1654	0.2034	0.0559	0.0412
2.2156	0.1967	0.0482	0.0334
2.2658	0.1895	0.0402	0.0252
2.3160	0.1819	0.0319	0.0164
2.3257	0.1803	0.0303	0.0

ORIGINAL PAGE IS
OF POOR QUALITY

Table A-6. (Continued)
Rotor G Airfoil Section Coordinates
U.S. Customary Units

X-CUTOF, 0.0020

GAMMA	L(OC)	L(IC)	L(CG)	L(SP)
40.2607	2.3161	0.0074	1.1521	1.1521
AREA	H(OC)	H(IC)	H(CG)	H(SP)
.1720	0.0071	0.0074	0.1210	0.1210

TI 0.0148 TM 0.0039 TO 0.0143

L	HS	HP	HT(HS - HP)
0.0	0.0074	0.0074	0.0
0.0074	0.0151	-0.0000	0.0151
0.0151	0.0262	0.0043	0.0219
0.1003	0.0388	0.0093	0.0295
0.1504	0.0510	0.0143	0.0367
0.2005	0.0627	0.0192	0.0435
0.2507	0.0740	0.0240	0.0500
0.3008	0.0848	0.0288	0.0561
0.3509	0.0953	0.0335	0.0618
0.4011	0.1053	0.0382	0.0671
0.4512	0.1148	0.0428	0.0721
0.5013	0.1240	0.0473	0.0767
0.5515	0.1328	0.0518	0.0809
0.6016	0.1411	0.0562	0.0848
0.6517	0.1490	0.0607	0.0883
0.7019	0.1565	0.0651	0.0915
0.7520	0.1637	0.0694	0.0943
0.8021	0.1704	0.0737	0.0967
0.8523	0.1767	0.0779	0.0988
0.9024	0.1827	0.0821	0.1006
0.9525	0.1883	0.0863	0.1019
1.0026	0.1937	0.0905	0.1032
1.0528	0.1986	0.0949	0.1038
1.1029	0.2029	0.0991	0.1038
1.1530	0.2067	0.1027	0.1040
1.2032	0.2096	0.1060	0.1036
1.2533	0.2119	0.1086	0.1029
1.3034	0.2129	0.1109	0.1020
1.3536	0.2124	0.1117	0.1007
1.4037	0.2113	0.1123	0.0991
1.4538	0.2093	0.1121	0.0972
1.5040	0.2067	0.1117	0.0950
1.5541	0.2037	0.1096	0.0925
1.6042	0.1971	0.1074	0.0897
1.6544	0.1911	0.1044	0.0866
1.7045	0.1840	0.1007	0.0832
1.7546	0.1759	0.0964	0.0795
1.8048	0.1667	0.0913	0.0755
1.8549	0.1566	0.0856	0.0711
1.9050	0.1453	0.0790	0.0664
1.9552	0.1330	0.0717	0.0613
2.0053	0.1196	0.0638	0.0559
2.0554	0.1051	0.0550	0.0501
2.1056	0.0895	0.0456	0.0439
2.1557	0.0726	0.0353	0.0373
2.2058	0.0546	0.0243	0.0304
2.2560	0.0354	0.0124	0.0230
2.3061	0.0149	-0.0002	0.0151
2.3132	0.0071	0.0071	0.0

X-CUTOF, 10.1128

GAMMA	L(OC)	L(IC)	L(CG)	L(SP)
42.1937	2.3671	0.0070	1.1444	1.1444
AREA	H(OC)	H(IC)	H(CG)	H(SP)
.1577	0.0066	0.0070	0.1162	0.1162

TI 0.0139 TM 0.0048 TO 0.0131

L	HS	HP	HT(HS - HP)
0.0	0.0070	0.0070	0.0
0.0070	0.0141	-0.0000	0.0141
0.0502	0.0244	0.0040	0.0204
0.1003	0.0359	0.0086	0.0273
0.1505	0.0471	0.0132	0.0339
0.2006	0.0579	0.0177	0.0401
0.2508	0.0682	0.0222	0.0460
0.3009	0.0782	0.0267	0.0515
0.3511	0.0878	0.0311	0.0567
0.4012	0.0971	0.0355	0.0616
0.4514	0.1059	0.0398	0.0661
0.5015	0.1144	0.0441	0.0703
0.5517	0.1225	0.0484	0.0741
0.6018	0.1303	0.0526	0.0777
0.6520	0.1377	0.0569	0.0809
0.7021	0.1448	0.0611	0.0837
0.7523	0.1515	0.0653	0.0862
0.8025	0.1579	0.0694	0.0884
0.8526	0.1639	0.0736	0.0903
0.9028	0.1696	0.0777	0.0919
0.9529	0.1750	0.0819	0.0931
1.0031	0.1801	0.0860	0.0941
1.0532	0.1849	0.0903	0.0946
1.1034	0.1893	0.0945	0.0948
1.1535	0.1937	0.0985	0.0952
1.2037	0.1973	0.1027	0.0946
1.2538	0.2001	0.1063	0.0937
1.3040	0.2020	0.1093	0.0928
1.3541	0.2030	0.1115	0.0915
1.4043	0.2029	0.1129	0.0900
1.4544	0.2019	0.1137	0.0882
1.5046	0.1998	0.1136	0.0861
1.5548	0.1967	0.1128	0.0839
1.6049	0.1925	0.1112	0.0813
1.6551	0.1873	0.1089	0.0784
1.7052	0.1810	0.1057	0.0753
1.7554	0.1737	0.1017	0.0719
1.8055	0.1652	0.0969	0.0683
1.8557	0.1556	0.0913	0.0643
1.9058	0.1449	0.0848	0.0601
1.9560	0.1330	0.0774	0.0555
2.0061	0.1198	0.0692	0.0506
2.0563	0.1054	0.0600	0.0455
2.1064	0.0898	0.0499	0.0399
2.1566	0.0729	0.0389	0.0340
2.2067	0.0546	0.0269	0.0277
2.2569	0.0349	0.0138	0.0211
2.3071	0.0137	-0.0002	0.0139
2.3136	0.0066	0.0066	0.0

X-CUTOF, 10.4136

GAMMA	L(OC)	L(IC)	L(CG)	L(SP)
44.7972	2.2987	0.0064	1.1467	1.1467
AREA	H(OC)	H(IC)	H(CG)	H(SP)
.1413	0.0061	0.0064	0.1118	0.1118

TI 0.0127 TM 0.0053 TO 0.0121

L	HS	HP	HT(HS - HP)
0.0	0.0064	0.0064	0.0
0.0064	0.0129	-0.0000	0.0129
0.0460	0.0225	0.0039	0.0186
0.0960	0.0321	0.0083	0.0238
0.1499	0.0434	0.0126	0.0307
0.1999	0.0523	0.0170	0.0353
0.2499	0.0628	0.0212	0.0416
0.2998	0.0721	0.0255	0.0466
0.3498	0.0809	0.0297	0.0512
0.3998	0.0895	0.0339	0.0556
0.4498	0.0977	0.0380	0.0596
0.4997	0.1055	0.0422	0.0634
0.5497	0.1131	0.0463	0.0668
0.5997	0.1203	0.0503	0.0700
0.6496	0.1272	0.0544	0.0728
0.6996	0.1338	0.0585	0.0753
0.7496	0.1401	0.0625	0.0776
0.7996	0.1461	0.0665	0.0796
0.8495	0.1518	0.0706	0.0812
0.8995	0.1572	0.0746	0.0826
0.9495	0.1623	0.0786	0.0837
0.9994	0.1672	0.0827	0.0845
1.0494	0.1717	0.0867	0.0850
1.0994	0.1761	0.0908	0.0853
1.1494	0.1804	0.0949	0.0855
1.1993	0.1842	0.0988	0.0846
1.2493	0.1875	0.1029	0.0835
1.2993	0.1909	0.1077	0.0832
1.3493	0.1931	0.1111	0.0820
1.3992	0.1943	0.1138	0.0806
1.4492	0.1945	0.1155	0.0789
1.4992	0.1935	0.1164	0.0770
1.5491	0.1914	0.1164	0.0750
1.5991	0.1881	0.1155	0.0727
1.6491	0.1837	0.1136	0.0701
1.6990	0.1782	0.1108	0.0673
1.7490	0.1714	0.1071	0.0644
1.7990	0.1635	0.1024	0.0611
1.8490	0.1543	0.0967	0.0576
1.8989	0.1439	0.0901	0.0539
1.9489	0.1323	0.0824	0.0499
1.9989	0.1193	0.0737	0.0456
2.0489	0.1050	0.0641	0.0410
2.0988	0.0894	0.0533	0.0361
2.1488	0.0724	0.0416	0.0308
2.1988	0.0540	0.0287	0.0253
2.2488	0.0341	0.0148	0.0193
2.2987	0.0127	-0.0002	0.0130
2.3048	0.0061	0.0061	0.0

Table A-7.
Stator G Airfoil Section Coordinates
SI (Metric) Units

X-CUTOF, 21.1212

GAMMA	L(OC)	L(IC)	L(CG)	L(SP)
25.9700	5.1373	0.0158	2.5984	2.5984
AREA	H(OC)	H(IC)	H(CG)	H(SP)
.9852	0.0159	0.0158	0.5076	0.5076

TI 0.0316 TM 0.2611 TO 0.0318

L	HS	HP.	HT(HS - HP)
0.0	0.0158	0.0158	0.0
0.0158	0.0329	-0.0004	0.0333
0.1117	0.0737	0.0225	0.0513
0.2234	0.1201	0.0488	0.0713
0.3350	0.1651	0.0749	0.0902
0.4467	0.2087	0.1006	0.1081
0.5584	0.2510	0.1261	0.1249
0.6701	0.2919	0.1512	0.1407
0.7818	0.3316	0.1761	0.1555
0.8934	0.3700	0.2007	0.1693
1.0051	0.4071	0.2250	0.1821
1.1168	0.4430	0.2490	0.1940
1.2285	0.4776	0.2727	0.2049
1.3402	0.5110	0.2961	0.2149
1.4518	0.5432	0.3193	0.2239
1.5635	0.5742	0.3422	0.2321
1.6752	0.6040	0.3648	0.2393
1.7869	0.6326	0.3871	0.2456
1.8986	0.6601	0.4091	0.2510
2.0102	0.6865	0.4309	0.2556
2.1219	0.7115	0.4526	0.2589
2.2336	0.7364	0.4735	0.2629
2.3453	0.7561	0.4948	0.2633
2.4570	0.7767	0.5132	0.2635
2.5686	0.7918	0.5287	0.2630
2.6803	0.8030	0.5412	0.2619
2.7920	0.8106	0.5505	0.2601
2.9037	0.8145	0.5567	0.2579
3.0154	0.8148	0.5598	0.2550
3.1271	0.8113	0.5598	0.2516
3.2387	0.8042	0.5567	0.2475
3.3504	0.7934	0.5505	0.2429
3.4621	0.7789	0.5413	0.2376
3.5738	0.7606	0.5289	0.2316
3.6855	0.7384	0.5134	0.2250
3.7971	0.7123	0.4947	0.2176
3.9088	0.6822	0.4729	0.2094
4.0205	0.6481	0.4477	0.2004
4.1322	0.6097	0.4192	0.1904
4.2439	0.5668	0.3873	0.1795
4.3555	0.5194	0.3520	0.1675
4.4672	0.4672	0.3131	0.1542
4.5789	0.4101	0.2704	0.1396
4.6906	0.3476	0.2241	0.1235
4.8023	0.2793	0.1738	0.1056
4.9139	0.2052	0.1194	0.0859
5.0256	0.1245	0.0607	0.0638
5.1373	0.0365	-0.0025	0.0389
5.1532	0.0159	0.0159	0.0

X-CUTOF, 21.6676

GAMMA	L(OC)	L(IC)	L(CG)	L(SP)
25.7310	5.1295	0.0167	2.5930	2.5930
AREA	H(OC)	H(IC)	H(CG)	H(SP)
1.089	0.0169	0.0167	0.4800	0.4800

TI 0.0335 TM 0.2678 TO 0.0339

L	HS	HP.	HT(HS - HP)
0.0	0.0167	0.0167	0.0
0.0167	0.0347	-0.0004	0.0351
0.1115	0.0741	0.0213	0.0528
0.2230	0.1196	0.0466	0.0730
0.3345	0.1638	0.0716	0.0922
0.4460	0.2067	0.0963	0.1103
0.5576	0.2482	0.1208	0.1274
0.6691	0.2885	0.1450	0.1436
0.7806	0.3275	0.1688	0.1587
0.8921	0.3652	0.1924	0.1728
1.0036	0.4016	0.2157	0.1859
1.1151	0.4367	0.2387	0.1981
1.2266	0.4706	0.2613	0.2093
1.3381	0.5032	0.2837	0.2195
1.4497	0.5345	0.3057	0.2288
1.5612	0.5646	0.3274	0.2372
1.6727	0.5933	0.3487	0.2446
1.7842	0.6208	0.3698	0.2511
1.8957	0.6472	0.3905	0.2568
2.0072	0.6727	0.4110	0.2617
2.1187	0.6960	0.4316	0.2644
2.2302	0.7179	0.4503	0.2676
2.3417	0.7365	0.4677	0.2688
2.4532	0.7516	0.4824	0.2692
2.5648	0.7632	0.4942	0.2690
2.6763	0.7713	0.5032	0.2682
2.7878	0.7760	0.5093	0.2667
2.8993	0.7773	0.5127	0.2646
3.0108	0.7752	0.5134	0.2618
3.1223	0.7697	0.5112	0.2584
3.2338	0.7607	0.5064	0.2543
3.3454	0.7484	0.4989	0.2495
3.4569	0.7326	0.4886	0.2440
3.5684	0.7134	0.4756	0.2378
3.6799	0.6906	0.4599	0.2308
3.7914	0.6644	0.4414	0.2230
3.9029	0.6346	0.4203	0.2143
4.0144	0.6011	0.3963	0.2047
4.1259	0.5636	0.3696	0.1942
4.2375	0.5227	0.3401	0.1826
4.3490	0.4777	0.3078	0.1700
4.4605	0.4286	0.2726	0.1561
4.5720	0.3753	0.2344	0.1409
4.6835	0.3176	0.1934	0.1242
4.7950	0.2552	0.1493	0.1059
4.9065	0.1880	0.1021	0.0860
5.0180	0.1157	0.0517	0.0639
5.1295	0.0376	-0.0019	0.0397
5.1465	0.0169	0.0169	0.0

X-CUTOF, 22.1934

GAMMA	L(OC)	L(IC)	L(CG)	L(SP)
24.7610	5.1319	0.0183	2.6004	2.6004
AREA	H(OC)	H(IC)	H(CG)	H(SP)
1.047	0.0179	0.0183	0.4319	0.4319

TI 0.0367 TM 0.2822 TO 0.0359

L	HS	HP.	HT(HS - HP)
0.0	0.0183	0.0183	0.0
0.0183	0.0379	-0.0004	0.0383
0.1116	0.0741	0.0199	0.0543
0.2231	0.1185	0.0441	0.0743
0.3347	0.1614	0.0679	0.0935
0.4463	0.2029	0.0913	0.1116
0.5578	0.2429	0.1141	0.1289
0.6694	0.2816	0.1364	0.1452
0.7809	0.3189	0.1583	0.1606
0.8925	0.3547	0.1796	0.1751
1.0041	0.3892	0.2004	0.1887
1.1156	0.4223	0.2208	0.2015
1.2272	0.4540	0.2406	0.2134
1.3388	0.4843	0.2599	0.2245
1.4503	0.5133	0.2786	0.2347
1.5619	0.5409	0.2968	0.2440
1.6735	0.5672	0.3145	0.2526
1.7850	0.5922	0.3317	0.2606
1.8966	0.6155	0.3484	0.2671
2.0082	0.6376	0.3643	0.2734
2.1197	0.6569	0.3799	0.2770
2.2313	0.6732	0.3935	0.2797
2.3428	0.6865	0.4050	0.2815
2.4544	0.6968	0.4143	0.2825
2.5660	0.7041	0.4214	0.2827
2.6775	0.7085	0.4264	0.2821
2.7891	0.7100	0.4292	0.2808
2.9007	0.7085	0.4299	0.2787
3.0122	0.7042	0.4284	0.2758
3.1238	0.6970	0.4248	0.2722
3.2354	0.6868	0.4191	0.2677
3.3469	0.6738	0.4113	0.2625
3.4585	0.6579	0.4014	0.2565
3.5700	0.6390	0.3894	0.2496
3.6816	0.6172	0.3753	0.2418
3.7932	0.5923	0.3591	0.2332
3.9047	0.5645	0.3408	0.2237
4.0163	0.5336	0.3205	0.2131
4.1279	0.4995	0.2980	0.2016
4.2394	0.4623	0.2734	0.1889
4.3510	0.4218	0.2466	0.1752
4.4626	0.3780	0.2178	0.1602
4.5741	0.3306	0.1868	0.1440
4.6857	0.2800	0.1536	0.1264
4.7972	0.2255	0.1182	0.1073
4.9088	0.1674	0.0807	0.0867
5.0204	0.1052	0.0409	0.0643
5.1319	0.0369	-0.0012	0.0401
5.1499	0.0179	0.0179	0.0

Table A-7. (Continued)
Stator G Airfoil Section Coordinates
SI (Metric) Units

X-CUTOF, 22.9024

GAMMA	L(OC)	L(IC)	L(CG)	L(SP)
44.0993	5.1296	0.0202	2.5893	2.5893
AREA	H(OC)	H(IC)	H(CG)	H(SP)
1.100	0.0194	0.0202	0.3859	0.3859

TI 0.0404 TM 0.2966 TO 0.0369

L	HS	HP	HT(HS - HP)
0.0	0.0202	0.0202	0.0
0.0202	0.0416	-0.0004	0.0419
0.1115	0.0759	0.0174	0.0585
0.2230	0.1186	0.0393	0.0794
0.3345	0.1606	0.0608	0.0999
0.4461	0.2009	0.0816	0.1193
0.5576	0.2396	0.1020	0.1376
0.6691	0.2766	0.1216	0.1550
0.7806	0.3124	0.1411	0.1713
0.8921	0.3465	0.1598	0.1867
1.0036	0.3791	0.1780	0.2010
1.1152	0.4101	0.1957	0.2145
1.2267	0.4397	0.2128	0.2270
1.3382	0.4676	0.2293	0.2385
1.4497	0.4946	0.2453	0.2493
1.5612	0.5199	0.2609	0.2590
1.6727	0.5435	0.2759	0.2676
1.7843	0.5655	0.2902	0.2753
1.8958	0.5849	0.3039	0.2811
2.0073	0.6019	0.3159	0.2859
2.1188	0.6163	0.3264	0.2899
2.2303	0.6281	0.3352	0.2929
2.3418	0.6374	0.3424	0.2950
2.4534	0.6442	0.3479	0.2963
2.5649	0.6486	0.3518	0.2967
2.6764	0.6504	0.3541	0.2963
2.7879	0.6499	0.3549	0.2950
2.8994	0.6469	0.3540	0.2929
3.0109	0.6414	0.3515	0.2899
3.1225	0.6335	0.3474	0.2861
3.2340	0.6231	0.3418	0.2814
3.3455	0.6103	0.3346	0.2758
3.4570	0.5949	0.3257	0.2693
3.5685	0.5771	0.3152	0.2618
3.6800	0.5567	0.3032	0.2535
3.7916	0.5337	0.2895	0.2442
3.9031	0.5081	0.2743	0.2338
4.0146	0.4799	0.2575	0.2225
4.1261	0.4491	0.2390	0.2101
4.2376	0.4155	0.2190	0.1965
4.3491	0.3792	0.1973	0.1819
4.4607	0.3400	0.1739	0.1660
4.5722	0.2979	0.1490	0.1489
4.6837	0.2529	0.1224	0.1305
4.7952	0.2048	0.0941	0.1107
4.9067	0.1536	0.0642	0.0895
5.0182	0.0992	0.0325	0.0666
5.1298	0.0414	-0.0008	0.0422
5.1492	0.0194	0.0194	0.0

X-CUTOF, 23.7044

GAMMA	L(OC)	L(IC)	L(CG)	L(SP)
23.8651	5.1223	0.0221	2.5783	2.5783
AREA	H(OC)	H(IC)	H(CG)	H(SP)
1.100	0.0210	0.0221	0.3828	0.3828

TI 0.0443 TM 0.3116 TO 0.0420

L	HS	HP	HT(HS - HP)
0.0	0.0221	0.0221	0.0
0.0221	0.0457	-0.0004	0.0461
0.1114	0.0803	0.0167	0.0637
0.2227	0.1246	0.0382	0.0864
0.3341	0.1677	0.0592	0.1085
0.4454	0.2091	0.0798	0.1293
0.5568	0.2488	0.0998	0.1490
0.6681	0.2868	0.1194	0.1674
0.7795	0.3231	0.1385	0.1846
0.8908	0.3577	0.1571	0.2007
1.0022	0.3908	0.1752	0.2156
1.1135	0.4222	0.1928	0.2294
1.2249	0.4520	0.2099	0.2421
1.3362	0.4803	0.2267	0.2536
1.4476	0.5071	0.2429	0.2642
1.5590	0.5322	0.2585	0.2737
1.6703	0.5560	0.2733	0.2816
1.7817	0.5785	0.2867	0.2887
1.8930	0.5985	0.2987	0.2948
2.0044	0.6090	0.3092	0.2999
2.1157	0.6222	0.3181	0.3041
2.2271	0.6329	0.3257	0.3073
2.3384	0.6413	0.3317	0.3096
2.4498	0.6473	0.3362	0.3111
2.5611	0.6509	0.3393	0.3116
2.6725	0.6522	0.3409	0.3112
2.7838	0.6510	0.3410	0.3100
2.8952	0.6475	0.3396	0.3078
3.0066	0.6415	0.3368	0.3047
3.1179	0.6332	0.3325	0.3008
3.2293	0.6225	0.3266	0.2958
3.3406	0.6093	0.3193	0.2900
3.4520	0.5937	0.3106	0.2831
3.5633	0.5757	0.3003	0.2754
3.6747	0.5552	0.2886	0.2666
3.7860	0.5321	0.2754	0.2568
3.8974	0.5066	0.2607	0.2459
4.0087	0.4785	0.2445	0.2340
4.1201	0.4478	0.2266	0.2209
4.2314	0.4144	0.2076	0.2067
4.3428	0.3783	0.1870	0.1914
4.4542	0.3395	0.1648	0.1747
4.5655	0.2978	0.1410	0.1568
4.6769	0.2533	0.1158	0.1375
4.7882	0.2058	0.0890	0.1168
4.8996	0.1552	0.0606	0.0946
5.0109	0.1016	0.0307	0.0708
5.1223	0.0446	-0.0006	0.0454
5.1433	0.0210	0.0210	0.0

X-CUTOF, 24.4232

GAMMA	L(OC)	L(IC)	L(CG)	L(SP)
23.6309	5.1210	0.0234	2.5786	2.5786
AREA	H(OC)	H(IC)	H(CG)	H(SP)
1.211	0.0225	0.0234	0.3885	0.3885

TI 0.0466 TM 0.3255 TO 0.0447

L	HS	HP	HT(HS - HP)
0.0	0.0234	0.0234	0.0
0.0234	0.0484	-0.0004	0.0488
0.1113	0.0838	0.0171	0.0667
0.2227	0.1296	0.0397	0.0902
0.3340	0.1747	0.0616	0.1131
0.4453	0.2176	0.0829	0.1347
0.5566	0.2587	0.1037	0.1551
0.6680	0.2981	0.1238	0.1743
0.7793	0.3356	0.1433	0.1922
0.8906	0.3714	0.1623	0.2091
1.0019	0.4055	0.1806	0.2248
1.1133	0.4379	0.1984	0.2395
1.2246	0.4686	0.2156	0.2532
1.3359	0.4979	0.2324	0.2655
1.4473	0.5247	0.2484	0.2763
1.5586	0.5493	0.2634	0.2859
1.6699	0.5714	0.2772	0.2942
1.7812	0.5911	0.2896	0.3015
1.8926	0.6084	0.3006	0.3078
2.0039	0.6232	0.3101	0.3131
2.1152	0.6357	0.3183	0.3175
2.2265	0.6459	0.3250	0.3209
2.3379	0.6536	0.3303	0.3233
2.4492	0.6590	0.3342	0.3248
2.5605	0.6621	0.3368	0.3253
2.6718	0.6629	0.3380	0.3249
2.7832	0.6613	0.3378	0.3235
2.8945	0.6575	0.3362	0.3213
3.0058	0.6513	0.3332	0.3180
3.1172	0.6427	0.3289	0.3139
3.2285	0.6316	0.3231	0.3087
3.3398	0.6185	0.3160	0.3026
3.4511	0.6029	0.3074	0.2955
3.5625	0.5847	0.2974	0.2874
3.6738	0.5641	0.2859	0.2782
3.7851	0.5410	0.2730	0.2680
3.8964	0.5154	0.2586	0.2568
4.0078	0.4871	0.2426	0.2444
4.1191	0.4562	0.2254	0.2308
4.2304	0.4226	0.2065	0.2161
4.3418	0.3863	0.1862	0.2001
4.4531	0.3471	0.1642	0.1829
4.5644	0.3050	0.1407	0.1642
4.6757	0.2599	0.1157	0.1442
4.7871	0.2117	0.0890	0.1227
4.8984	0.1604	0.0607	0.0996
5.0097	0.1057	0.0308	0.0749
5.1210	0.0476	-0.0008	0.0484
5.1434	0.0223	0.0223	0.0

ORIGINAL PAGE IS
OF POOR QUALITY

Table A-7. (Continued)
Stator G Airfoil Section Coordinates
SI (Metric) Units

X-CUTOF, 25.1199

GAMMA	L(OC)	L(IC)	L(CG)	L(SP)
25.0494	5.1166	0.0243	2.5793	2.5793
AREA	H(OC)	H(IC)	H(CG)	H(SP)
1.262	0.0237	0.0243	0.4103	0.4103

TI 0.0487 TM 0.3378 TO 0.0475

L	HS	HP	HT(HS - HP)
0.0	0.0243	0.0243	0.0
0.0243	0.0506	-0.0005	0.0511
0.1112	0.0863	0.0163	0.0700
0.2225	0.1371	0.0421	0.0950
0.3337	0.1842	0.0654	0.1188
0.4449	0.2292	0.0881	0.1412
0.5562	0.2725	0.1101	0.1623
0.6674	0.3139	0.1316	0.1822
0.7786	0.3535	0.1526	0.2009
0.8899	0.3914	0.1729	0.2185
1.0011	0.4277	0.1927	0.2350
1.1123	0.4622	0.2120	0.2502
1.2235	0.4952	0.2307	0.2645
1.3348	0.5261	0.2491	0.2769
1.4460	0.5543	0.2665	0.2878
1.5572	0.5800	0.2826	0.2974
1.6685	0.6031	0.2972	0.3059
1.7797	0.6236	0.3103	0.3133
1.8909	0.6416	0.3219	0.3197
2.0022	0.6570	0.3320	0.3250
2.1134	0.6700	0.3406	0.3295
2.2246	0.6805	0.3476	0.3329
2.3359	0.6886	0.3532	0.3354
2.4471	0.6942	0.3573	0.3369
2.5583	0.6974	0.3599	0.3375
2.6696	0.6981	0.3610	0.3372
2.7808	0.6965	0.3607	0.3358
2.8920	0.6925	0.3589	0.3336
3.0032	0.6860	0.3556	0.3304
3.1145	0.6771	0.3508	0.3263
3.2257	0.6657	0.3446	0.3211
3.3369	0.6518	0.3368	0.3150
3.4482	0.6353	0.3275	0.3078
3.5594	0.6163	0.3167	0.2996
3.6706	0.5947	0.3044	0.2903
3.7819	0.5705	0.2906	0.2799
3.8931	0.5436	0.2752	0.2684
4.0043	0.5140	0.2582	0.2558
4.1156	0.4815	0.2396	0.2419
4.2268	0.4462	0.2195	0.2267
4.3380	0.4080	0.1977	0.2103
4.4493	0.3668	0.1744	0.1924
4.5605	0.3225	0.1493	0.1731
4.6717	0.2750	0.1227	0.1523
4.7830	0.2242	0.0943	0.1299
4.8942	0.1700	0.0643	0.1058
5.0054	0.1123	0.0326	0.0798
5.1166	0.0509	-0.0009	0.0519
5.1404	0.0237	0.0237	0.0

X-CUTOF, 25.5737

GAMMA	L(OC)	L(IC)	L(CG)	L(SP)
26.0099	5.1209	0.0245	2.5803	2.5803
AREA	H(OC)	H(IC)	H(CG)	H(SP)
1.302	0.0247	0.0245	0.4264	0.4264

TI 0.0490 TM 0.3476 TO 0.0494

L	HS	HP	HT(HS - HP)
0.0	0.0245	0.0245	0.0
0.0245	0.0512	-0.0006	0.0518
0.1113	0.0917	0.0197	0.0720
0.2226	0.1429	0.0451	0.0978
0.3340	0.1921	0.0698	0.1223
0.4453	0.2394	0.0940	0.1454
0.5566	0.2848	0.1175	0.1673
0.6679	0.3284	0.1404	0.1880
0.7793	0.3702	0.1627	0.2075
0.8906	0.4102	0.1844	0.2258
1.0019	0.4490	0.2056	0.2434
1.1132	0.4854	0.2264	0.2589
1.2246	0.5195	0.2464	0.2731
1.3359	0.5511	0.2657	0.2854
1.4472	0.5800	0.2837	0.2963
1.5585	0.6061	0.3000	0.3061
1.6699	0.6295	0.3148	0.3148
1.7812	0.6503	0.3280	0.3223
1.8925	0.6684	0.3395	0.3289
2.0038	0.6840	0.3496	0.3344
2.1152	0.6970	0.3580	0.3390
2.2265	0.7074	0.3649	0.3425
2.3378	0.7153	0.3702	0.3451
2.4491	0.7207	0.3740	0.3467
2.5605	0.7235	0.3762	0.3473
2.6718	0.7239	0.3769	0.3470
2.7831	0.7217	0.3760	0.3456
2.8944	0.7170	0.3736	0.3433
3.0058	0.7097	0.3696	0.3401
3.1171	0.6999	0.3641	0.3358
3.2284	0.6875	0.3570	0.3305
3.3397	0.6726	0.3484	0.3243
3.4511	0.6551	0.3382	0.3169
3.5624	0.6350	0.3264	0.3085
3.6737	0.6122	0.3131	0.2990
3.7850	0.5867	0.2982	0.2884
3.8964	0.5585	0.2816	0.2768
4.0077	0.5275	0.2636	0.2637
4.1190	0.4937	0.2443	0.2494
4.2303	0.4570	0.2231	0.2338
4.3416	0.4174	0.2004	0.2169
4.4530	0.3748	0.1762	0.1986
4.5643	0.3291	0.1504	0.1788
4.6756	0.2802	0.1229	0.1573
4.7869	0.2282	0.0940	0.1342
4.8983	0.1730	0.0636	0.1093
5.0096	0.1146	0.0321	0.0825
5.1209	0.0530	-0.0009	0.0539
5.1456	0.0247	0.0247	0.0

X-CUTOF, 25.7989

GAMMA	L(OC)	L(IC)	L(CG)	L(SP)
26.3915	5.1128	0.0246	2.5767	2.5767
AREA	H(OC)	H(IC)	H(CG)	H(SP)
1.317	0.0251	0.0246	0.4266	0.4266

TI 0.0492 TM 0.3517 TO 0.0501

L	HS	HP	HT(HS - HP)
0.0	0.0246	0.0246	0.0
0.0246	0.0516	-0.0006	0.0522
0.1111	0.0934	0.0198	0.0736
0.2223	0.1457	0.0455	0.1002
0.3334	0.1960	0.0706	0.1254
0.4446	0.2442	0.0951	0.1491
0.5557	0.2905	0.1191	0.1714
0.6669	0.3348	0.1425	0.1923
0.7780	0.3772	0.1655	0.2118
0.8892	0.4176	0.1879	0.2299
1.0003	0.4569	0.2097	0.2472
1.1115	0.4934	0.2313	0.2620
1.2226	0.5273	0.2516	0.2757
1.3338	0.5585	0.2705	0.2880
1.4449	0.5870	0.2879	0.2991
1.5561	0.6127	0.3037	0.3090
1.6672	0.6357	0.3179	0.3178
1.7784	0.6560	0.3305	0.3255
1.8895	0.6737	0.3415	0.3322
2.0007	0.6888	0.3509	0.3379
2.1118	0.7014	0.3588	0.3426
2.2230	0.7113	0.3656	0.3463
2.3341	0.7188	0.3696	0.3490
2.4453	0.7236	0.3729	0.3507
2.5564	0.7260	0.3746	0.3514
2.6676	0.7259	0.3747	0.3512
2.7787	0.7233	0.3733	0.3499
2.8898	0.7181	0.3705	0.3477
3.0010	0.7105	0.3661	0.3445
3.1121	0.7004	0.3602	0.3402
3.2233	0.6878	0.3529	0.3350
3.3344	0.6727	0.3440	0.3287
3.4456	0.6550	0.3337	0.3213
3.5567	0.6347	0.3219	0.3128
3.6679	0.6118	0.3086	0.3032
3.7790	0.5863	0.2938	0.2925
3.8902	0.5581	0.2775	0.2806
4.0013	0.5272	0.2597	0.2675
4.1125	0.4935	0.2404	0.2531
4.2236	0.4570	0.2196	0.2373
4.3348	0.4176	0.1973	0.2202
4.4459	0.3752	0.1735	0.2017
4.5571	0.3297	0.1482	0.1816
4.6682	0.2812	0.1213	0.1599
4.7794	0.2294	0.0930	0.1364
4.8905	0.1743	0.0631	0.1112
5.0017	0.1158	0.0316	0.0840
5.1128	0.0538	-0.0009	0.0547
5.1379	0.0251	0.0251	0.0

Table A-8.
Stator G Airfoil Section Coordinates
U.S. Customary Units

X-CUTOF, 0.3154

GAMMA	L(OC)	L(IC)	L(CG)	L(SP)
25.9699	2.0226	0.0062	1.0230	1.0230
AREA	H(OC)	H(IC)	H(CG)	H(SP)
.1933	0.0063	0.0062	0.1999	0.1999

TI 0.0125 TM 0.1028 TO 0.0125

L	HS	HP	HT(HS - HP)
0.0	0.0062	0.0062	0.0
0.0062	0.0130	-0.0002	0.0131
0.0440	0.0290	0.0088	0.0202
0.0878	0.0473	0.0192	0.0280
0.1319	0.0650	0.0295	0.0355
0.1759	0.0822	0.0396	0.0425
0.2198	0.0988	0.0496	0.0492
0.2638	0.1149	0.0595	0.0554
0.3078	0.1306	0.0693	0.0612
0.3517	0.1457	0.0790	0.0667
0.3957	0.1603	0.0886	0.0717
0.4397	0.1744	0.0980	0.0764
0.4837	0.1880	0.1074	0.0807
0.5276	0.2012	0.1166	0.0846
0.5716	0.2139	0.1257	0.0882
0.6156	0.2261	0.1347	0.0914
0.6595	0.2378	0.1436	0.0942
0.7035	0.2491	0.1524	0.0967
0.7475	0.2599	0.1611	0.0988
0.7914	0.2702	0.1698	0.1004
0.8354	0.2800	0.1782	0.1018
0.8794	0.2901	0.1866	0.1035
0.9233	0.2984	0.1949	0.1035
0.9673	0.3058	0.2021	0.1037
1.0113	0.3117	0.2082	0.1035
1.0552	0.3162	0.2131	0.1031
1.0992	0.3191	0.2167	0.1024
1.1432	0.3207	0.2192	0.1015
1.1872	0.3208	0.2204	0.1004
1.2311	0.3194	0.2204	0.0990
1.2751	0.3166	0.2192	0.0974
1.3191	0.3124	0.2168	0.0956
1.3630	0.3068	0.2131	0.0935
1.4070	0.2999	0.2082	0.0912
1.4510	0.2907	0.2021	0.0886
1.4949	0.2805	0.1948	0.0857
1.5389	0.2686	0.1862	0.0825
1.5829	0.2552	0.1763	0.0789
1.6268	0	0.1650	0.0750
1.6708	0.2404	0.1525	0.0706
1.7148	0.2045	0.1386	0.0660
1.7587	0.1839	0.1233	0.0607
1.8027	0.1615	0.1065	0.0550
1.8467	0.1368	0.0882	0.0486
1.8907	0.1101	0.0684	0.0416
1.9346	0.0818	0.0470	0.0338
1.9786	0.0491	0.0239	0.0251
2.0226	0.0143	-0.0010	0.0153
2.0288	0.0063	0.0063	0.0

X-CUTOF, 0.5305

GAMMA	L(OC)	L(IC)	L(CG)	L(SP)
25.7309	2.0195	0.0066	1.0209	1.0209
AREA	H(OC)	H(IC)	H(CG)	H(SP)
.1964	0.0067	0.0066	0.1890	0.1890

TI 0.0132 TM 0.1054 TO 0.0133

L	HS	HP	HT(HS - HP)
0.0	0.0066	0.0066	0.0
0.0066	0.0137	-0.0001	0.0139
0.0439	0.0292	0.0064	0.0228
0.0878	0.0471	0.0185	0.0287
0.1317	0.0645	0.0282	0.0363
0.1756	0.0814	0.0379	0.0434
0.2195	0.0977	0.0476	0.0502
0.2634	0.1136	0.0571	0.0565
0.3073	0.1289	0.0665	0.0625
0.3512	0.1438	0.0757	0.0680
0.3951	0.1581	0.0849	0.0732
0.4390	0.1719	0.0940	0.0780
0.4829	0.1853	0.1029	0.0824
0.5268	0.1981	0.1117	0.0864
0.5707	0.2104	0.1203	0.0901
0.6146	0.2223	0.1289	0.0934
0.6585	0.2336	0.1373	0.0963
0.7024	0.2445	0.1456	0.0990
0.7463	0.2549	0.1537	0.1012
0.7902	0.2647	0.1621	0.1025
0.8341	0.2742	0.1700	0.1043
0.8781	0.2827	0.1778	0.1051
0.9220	0.2908	0.1841	0.1058
0.9659	0.2959	0.1899	0.1060
1.0098	0.3005	0.1945	0.1059
1.0537	0.3037	0.1981	0.1056
1.0976	0.3055	0.2005	0.1050
1.1415	0.3060	0.2019	0.1042
1.1854	0.3052	0.2021	0.1031
1.2293	0.3030	0.2013	0.1017
1.2732	0.2995	0.1994	0.1001
1.3171	0.2946	0.1964	0.0982
1.3610	0.2884	0.1924	0.0961
1.4049	0.2809	0.1872	0.0936
1.4488	0.2719	0.1811	0.0909
1.4927	0.2616	0.1738	0.0878
1.5366	0.2498	0.1655	0.0844
1.5805	0.2366	0.1560	0.0806
1.6244	0.2220	0.1455	0.0765
1.6683	0.2056	0.1339	0.0719
1.7122	0.1881	0.1212	0.0669
1.7561	0.1687	0.1073	0.0614
1.8000	0.1478	0.0923	0.0555
1.8439	0.1250	0.0761	0.0489
1.8878	0.1005	0.0588	0.0417
1.9317	0.0740	0.0402	0.0338
1.9756	0.0456	0.0204	0.0252
2.0195	0.0149	-0.0006	0.0156
2.0262	0.0067	0.0067	0.0

X-CUTOF, 0.7576

GAMMA	L(OC)	L(IC)	L(CG)	L(SP)
24.7598	2.0205	0.0073	1.0238	1.0238
AREA	H(OC)	H(IC)	H(CG)	H(SP)
.1822	0.0071	0.0073	0.1700	0.1700

TI 0.0146 TM 0.1111 TO 0.0141

L	HS	HP	HT(HS - HP)
0.0	0.0073	0.0073	0.0
0.0073	0.0150	-0.0002	0.0152
0.0439	0.0291	0.0076	0.0214
0.0878	0.0466	0.0173	0.0293
0.1318	0.0635	0.0267	0.0368
0.1757	0.0798	0.0359	0.0439
0.2196	0.0956	0.0449	0.0507
0.2635	0.1108	0.0537	0.0572
0.3075	0.1255	0.0623	0.0632
0.3514	0.1396	0.0707	0.0689
0.3953	0.1532	0.0789	0.0743
0.4392	0.1662	0.0869	0.0793
0.4832	0.1787	0.0947	0.0840
0.5271	0.1906	0.1023	0.0884
0.5710	0.2020	0.1097	0.0924
0.6149	0.2129	0.1168	0.0961
0.6589	0.2233	0.1236	0.0994
0.7028	0.2332	0.1301	0.1026
0.7467	0.2426	0.1363	0.1056
0.7906	0.2511	0.1417	0.1074
0.8346	0.2586	0.1466	0.1089
0.8785	0.2650	0.1510	0.1101
0.9224	0.2702	0.1594	0.1106
0.9663	0.2743	0.1631	0.1112
1.0102	0.2772	0.1659	0.1113
1.0542	0.2789	0.1678	0.1111
1.0981	0.2795	0.1690	0.1105
1.1420	0.2789	0.1692	0.1097
1.1859	0.2772	0.1686	0.1086
1.2299	0.2744	0.1672	0.1071
1.2738	0.2704	0.1650	0.1054
1.3177	0.2653	0.1619	0.1034
1.3616	0.2590	0.1580	0.1010
1.4056	0.2516	0.1533	0.0983
1.4495	0.2430	0.1477	0.0952
1.4934	0.2332	0.1414	0.0918
1.5373	0.2222	0.1342	0.0881
1.5813	0.2101	0.1262	0.0839
1.6252	0.1967	0.1173	0.0794
1.6691	0.1820	0.1076	0.0744
1.7130	0.1661	0.0971	0.0690
1.7569	0.1488	0.0857	0.0631
1.8009	0.1302	0.0735	0.0567
1.8448	0.1102	0.0605	0.0497
1.8887	0.0888	0.0465	0.0423
1.9326	0.0659	0.0318	0.0341
1.9766	0.0414	0.0161	0.0254
2.0205	0.0153	-0.0005	0.0158
2.0276	0.0071	0.0071	0.0

ORIGINAL PAGE IS
OF POOR QUALITY

Table A-8. (Continued)
Stator G Airfoil Section Coordinates
U.S. Customary Units

X-CUTOF, 0.0403

GAMMA	L(OC)	L(IC)	L(CG)	L(SP)
24.0470	2.0194	0.0180	1.0194	1.0194
AREA	H(OC)	H(IC)	H(CG)	H(SP)
.1705	0.0677	0.0680	0.1519	0.1519

TI 0.0161 TM 0.1168 TO 0.0153

L	HS	HP	HT(HS - HP)
0.0	0.0080	0.0080	0.0
0.0080	0.0165	-0.0001	0.0167
0.0439	0.0299	0.0068	0.0231
0.0877	0.0467	0.0154	0.0313
0.1317	0.0632	0.0239	0.0393
0.1756	0.0790	0.0321	0.0470
0.2195	0.0943	0.0401	0.0542
0.2634	0.1089	0.0479	0.0610
0.3073	0.1229	0.0555	0.0674
0.3512	0.1363	0.0629	0.0735
0.3951	0.1492	0.0700	0.0791
0.4390	0.1614	0.0770	0.0844
0.4829	0.1731	0.0837	0.0894
0.5268	0.1841	0.0902	0.0939
0.5707	0.1947	0.0965	0.0981
0.6146	0.2048	0.1026	0.1021
0.6585	0.2141	0.1087	0.1054
0.7024	0.2226	0.1144	0.1082
0.7463	0.2302	0.1196	0.1107
0.7902	0.2369	0.1243	0.1126
0.8341	0.2426	0.1285	0.1141
0.8780	0.2472	0.1319	0.1153
0.9219	0.2509	0.1346	0.1162
0.9658	0.2536	0.1369	0.1167
1.0097	0.2553	0.1385	0.1168
1.0536	0.2561	0.1394	0.1167
1.0975	0.2558	0.1397	0.1162
1.1414	0.2547	0.1393	0.1153
1.1853	0.2525	0.1384	0.1141
1.2292	0.2494	0.1368	0.1126
1.2731	0.2453	0.1345	0.1108
1.3170	0.2403	0.1317	0.1086
1.3609	0.2342	0.1282	0.1060
1.4048	0.2272	0.1241	0.1031
1.4487	0.2191	0.1194	0.0998
1.4926	0.2101	0.1140	0.0961
1.5365	0.2000	0.1080	0.0921
1.5804	0.1890	0.1014	0.0876
1.6243	0.1768	0.0941	0.0827
1.6682	0.1636	0.0862	0.0774
1.7121	0.1493	0.0777	0.0716
1.7560	0.1338	0.0685	0.0654
1.7999	0.1173	0.0587	0.0586
1.8438	0.0996	0.0482	0.0514
1.8877	0.0806	0.0371	0.0436
1.9316	0.0605	0.0253	0.0352
1.9755	0.0391	0.0128	0.0262
2.0194	0.0163	-0.0003	0.0166
2.0271	0.0077	0.0077	0.0

X-CUTOF, 0.3344

GAMMA	L(OC)	L(IC)	L(CG)	L(SP)
23.8649	2.0172	0.0088	1.0154	1.0154
AREA	H(OC)	H(IC)	H(CG)	H(SP)
.1796	0.0083	0.0088	0.1507	0.1507

TI 0.0177 TM 0.1227 TO 0.0165

L	HS	HP	HT(HS - HP)
0.0	0.0088	0.0088	0.0
0.0088	0.0182	-0.0001	0.0184
0.0439	0.0316	0.0065	0.0251
0.0877	0.0490	0.0150	0.0340
0.1316	0.0660	0.0233	0.0427
0.1754	0.0823	0.0314	0.0509
0.2193	0.0979	0.0393	0.0586
0.2631	0.1128	0.0470	0.0659
0.3070	0.1271	0.0545	0.0726
0.3508	0.1408	0.0618	0.0790
0.3947	0.1538	0.0689	0.0849
0.4385	0.1662	0.0759	0.0903
0.4824	0.1780	0.0826	0.0954
0.5262	0.1891	0.0892	0.0999
0.5701	0.1996	0.0957	0.1038
0.6139	0.2095	0.1018	0.1077
0.6578	0.2185	0.1076	0.1109
0.7016	0.2265	0.1128	0.1137
0.7455	0.2336	0.1176	0.1161
0.7893	0.2397	0.1217	0.1181
0.8332	0.2449	0.1252	0.1197
0.8770	0.2491	0.1282	0.1210
0.9209	0.2524	0.1305	0.1219
0.9647	0.2548	0.1323	0.1225
1.0086	0.2562	0.1335	0.1227
1.0524	0.2567	0.1342	0.1225
1.0963	0.2563	0.1342	0.1220
1.1401	0.2549	0.1337	0.1212
1.1840	0.2525	0.1325	0.1200
1.2278	0.2492	0.1308	0.1184
1.2717	0.2450	0.1286	0.1165
1.3155	0.2398	0.1257	0.1142
1.3594	0.2337	0.1222	0.1115
1.4032	0.2266	0.1182	0.1084
1.4471	0.2185	0.1136	0.1049
1.4909	0.2095	0.1084	0.1011
1.5348	0.1994	0.1026	0.0968
1.5786	0.1883	0.0962	0.0921
1.6225	0.1762	0.0893	0.0870
1.6663	0.1631	0.0817	0.0814
1.7102	0.1489	0.0736	0.0753
1.7540	0.1336	0.0648	0.0688
1.7979	0.1172	0.0555	0.0617
1.8417	0.0997	0.0456	0.0541
1.8856	0.0810	0.0350	0.0460
1.9294	0.0611	0.0239	0.0372
1.9733	0.0400	0.0121	0.0279
2.0172	0.0176	-0.0003	0.0179
2.0254	0.0083	0.0083	0.0

X-CUTOF, 0.0155

GAMMA	L(OC)	L(IC)	L(CG)	L(SP)
23.6812	2.0163	0.0093	1.0143	1.0143
AREA	H(OC)	H(IC)	H(CG)	H(SP)
.1881	0.0088	0.0093	0.1528	0.1528

TI 0.0187 TM 0.1281 TO 0.0170

L	HS	HP	HT(HS - HP)
0.0	0.0093	0.0093	0.0
0.0093	0.0193	-0.0002	0.0194
0.0438	0.0330	0.0066	0.0264
0.0877	0.0517	0.0152	0.0366
0.1315	0.0697	0.0237	0.0460
0.1753	0.0869	0.0320	0.0536
0.2192	0.1018	0.0401	0.0617
0.2630	0.1173	0.0480	0.0693
0.3068	0.1321	0.0557	0.0764
0.3507	0.1462	0.0631	0.0830
0.3945	0.1596	0.0702	0.0892
0.4383	0.1724	0.0770	0.0947
0.4822	0.1846	0.0835	0.1001
0.5260	0.1960	0.0912	0.1048
0.5698	0.2066	0.0977	0.1088
0.6136	0.2162	0.1037	0.1125
0.6575	0.2250	0.1091	0.1158
0.7013	0.2327	0.1140	0.1187
0.7451	0.2395	0.1183	0.1212
0.7890	0.2454	0.1221	0.1233
0.8328	0.2503	0.1253	0.1250
0.8766	0.2543	0.1279	0.1263
0.9205	0.2573	0.1300	0.1273
0.9643	0.2595	0.1316	0.1279
1.0081	0.2607	0.1326	0.1281
1.0520	0.2610	0.1331	0.1279
1.0958	0.2604	0.1330	0.1274
1.1396	0.2589	0.1324	0.1265
1.1835	0.2564	0.1312	0.1252
1.2273	0.2531	0.1295	0.1236
1.2711	0.2488	0.1272	0.1215
1.3150	0.2435	0.1244	0.1191
1.3588	0.2374	0.1210	0.1163
1.4026	0.2302	0.1171	0.1132
1.4465	0.2221	0.1126	0.1095
1.4903	0.2130	0.1075	0.1055
1.5341	0.2029	0.1018	0.1011
1.5780	0.1918	0.0956	0.0962
1.6218	0.1796	0.0888	0.0909
1.6656	0.1664	0.0813	0.0851
1.7094	0.1521	0.0733	0.0788
1.7533	0.1367	0.0647	0.0720
1.7971	0.1201	0.0554	0.0647
1.8409	0.1023	0.0456	0.0568
1.8848	0.0834	0.0351	0.0483
1.9286	0.0631	0.0239	0.0392
1.9724	0.0416	0.0121	0.0295
2.0163	0.0187	-0.0003	0.0190
2.0251	0.0088	0.0088	0.0

Table A-8. (Continued)
Stator G Airfoil Section Coordinates
U.S. Customary Units

X-CUTOF, 9.6898

GAMMA	L(OC)	L(IC)	L(CG)	L(SP)
25.0942	2.0154	0.0097	**1.0144**	1.0144
AREA	H(OC)	H(IC)	H(CG)	H(SP)
.1401	0.0093	0.0097	**0.1613**	0.1613

TI	TM	TO
0.0193	0.1330	0.0187

L	HS	HP	HT(HS - HP)
0.0	0.0097	0.0097	0.0
0.0097	0.0201	-0.0002	0.0202
0.0436	0.0347	0.0070	0.0278
0.0867	0.0540	0.0161	0.0379
0.1314	0.0725	0.0250	0.0475
0.1753	0.0903	0.0338	0.0565
0.2191	0.1073	0.0424	0.0649
0.2629	0.1236	0.0506	0.0728
0.3067	0.1392	0.0591	0.0801
0.3505	0.1542	0.0672	0.0870
0.3943	0.1684	0.0751	0.0933
0.4381	0.1820	0.0830	0.0989
0.4820	0.1951	0.0906	0.1045
0.5258	0.2072	0.0979	0.1092
0.5696	0.2183	0.1049	0.1134
0.6134	0.2283	0.1113	0.1171
0.6572	0.2374	0.1170	0.1204
0.7010	0.2455	0.1222	0.1233
0.7448	0.2526	0.1267	0.1259
0.7886	0.2587	0.1307	0.1280
0.8325	0.2638	0.1340	0.1297
0.8763	0.2679	0.1368	0.1311
0.9201	0.2711	0.1390	0.1321
0.9639	0.2733	0.1406	0.1326
1.0077	0.2745	0.1416	0.1329
1.0515	0.2748	0.1421	0.1327
1.0953	0.2742	0.1419	0.1322
1.1392	0.2726	0.1412	0.1313
1.1830	0.2700	0.1399	0.1301
1.2268	0.2665	0.1381	0.1284
1.2706	0.2620	0.1356	0.1264
1.3144	0.2566	0.1326	0.1240
1.3582	0.2501	0.1289	0.1212
1.4020	0.2426	0.1247	0.1179
1.4459	0.2341	0.1198	0.1143
1.4897	0.2246	0.1144	0.1102
1.5335	0.2140	0.1083	0.1057
1.5773	0.2023	0.1016	0.1007
1.6211	0.1896	0.0943	0.0952
1.6649	0.1757	0.0864	0.0893
1.7087	0.1606	0.0778	0.0828
1.7526	0.1444	0.0687	0.0758
1.7964	0.1270	0.0588	0.0682
1.8402	0.1083	0.0483	0.0600
1.8840	0.0883	0.0371	0.0512
1.9278	0.0669	0.0253	0.0416
1.9716	0.0443	0.0126	0.0314
2.0154	0.0201	-0.0004	0.0204
2.0246	0.0093	0.0093	0.0

X-CUTOF, 10.0685

GAMMA	L(OC)	L(IC)	L(CG)	L(SP)
26.0628	2.0141	0.0096	**1.0138**	1.0138
AREA	H(OC)	H(IC)	H(CG)	H(SP)
.2019	0.0097	0.0096	**0.1677**	0.1677

TI	TM	TO
0.0192	0.1368	0.0194

L	HS	HP	HT(HS - HP)
0.0	0.0096	0.0096	0.0
0.0096	0.0201	-0.0002	0.0203
0.0438	0.0360	0.0074	0.0286
0.0870	0.0562	0.0170	0.0391
0.1314	0.0756	0.0265	0.0490
0.1751	0.0942	0.0358	0.0583
0.2189	0.1120	0.0450	0.0670
0.2627	0.1292	0.0540	0.0752
0.3065	0.1457	0.0629	0.0828
0.3503	0.1616	0.0716	0.0900
0.3941	0.1767	0.0803	0.0964
0.4379	0.1909	0.0889	0.1020
0.4818	0.2045	0.0970	0.1075
0.5254	0.2169	0.1046	0.1123
0.5692	0.2283	0.1117	0.1166
0.6130	0.2386	0.1181	0.1205
0.6568	0.2478	0.1239	0.1239
0.7006	0.2560	0.1291	0.1269
0.7444	0.2631	0.1337	0.1295
0.7881	0.2693	0.1376	0.1316
0.8319	0.2744	0.1410	0.1334
0.8757	0.2785	0.1437	0.1348
0.9195	0.2817	0.1458	0.1359
0.9633	0.2838	0.1473	0.1365
1.0071	0.2849	0.1482	0.1367
1.0509	0.2851	0.1485	0.1366
1.0946	0.2842	0.1481	0.1361
1.1384	0.2824	0.1472	0.1352
1.1822	0.2795	0.1456	0.1339
1.2260	0.2757	0.1434	0.1322
1.2698	0.2708	0.1406	0.1302
1.3136	0.2649	0.1372	0.1277
1.3573	0.2580	0.1332	0.1248
1.4011	0.2501	0.1286	0.1215
1.4449	0.2411	0.1233	0.1178
1.4887	0.2310	0.1174	0.1136
1.5325	0.2199	0.1110	0.1089
1.5763	0.2077	0.1039	0.1038
1.6201	0.1944	0.0962	0.0982
1.6638	0.1799	0.0878	0.0921
1.7076	0.1643	0.0789	0.0854
1.7514	0.1475	0.0694	0.0782
1.7952	0.1296	0.0592	0.0704
1.8390	0.1103	0.0483	0.0620
1.8828	0.0898	0.0369	0.0528
1.9266	0.0680	0.0250	0.0429
1.9703	0.0451	0.0127	0.0325
2.0141	0.0209	-0.0004	0.0212
2.0238	0.0097	0.0097	0.0

X-CUTOF, 10.1570

GAMMA	L(OC)	L(IC)	L(CG)	L(SP)
26.3665	2.0118	0.0097	**1.0134**	1.0134
AREA	H(OC)	H(IC)	H(CG)	H(SP)
.2042	0.0099	0.0097	**0.1678**	0.1678

TI	TM	TO
0.0194	0.1385	0.0197

L	HS	HP	HT(HS - HP)
0.0	0.0097	0.0097	0.0
0.0097	0.0203	-0.0002	0.0205
0.0437	0.0368	0.0077	0.0291
0.0875	0.0573	0.0176	0.0397
0.1312	0.0771	0.0274	0.0497
0.1749	0.0961	0.0370	0.0591
0.2187	0.1143	0.0465	0.0679
0.2624	0.1318	0.0557	0.0761
0.3061	0.1486	0.0648	0.0837
0.3499	0.1647	0.0737	0.0910
0.3936	0.1800	0.0825	0.0974
0.4373	0.1942	0.0911	0.1031
0.4811	0.2076	0.0991	0.1085
0.5248	0.2199	0.1065	0.1134
0.5685	0.2311	0.1134	0.1177
0.6123	0.2412	0.1196	0.1216
0.6560	0.2503	0.1252	0.1251
0.6997	0.2583	0.1301	0.1282
0.7435	0.2653	0.1344	0.1309
0.7872	0.2712	0.1381	0.1331
0.8309	0.2761	0.1412	0.1349
0.8747	0.2800	0.1437	0.1363
0.9184	0.2830	0.1455	0.1374
0.9622	0.2849	0.1468	0.1381
1.0059	0.2858	0.1474	0.1384
1.0496	0.2857	0.1475	0.1383
1.0934	0.2847	0.1469	0.1378
1.1371	0.2827	0.1458	0.1369
1.1808	0.2797	0.1441	0.1356
1.2246	0.2757	0.1418	0.1339
1.2683	0.2707	0.1389	0.1319
1.3120	0.2648	0.1354	0.1294
1.3558	0.2578	0.1313	0.1265
1.3995	0.2498	0.1267	0.1231
1.4432	0.2408	0.1214	0.1194
1.4870	0.2308	0.1156	0.1152
1.5307	0.2196	0.1092	0.1105
1.5744	0.2075	0.1022	0.1053
1.6182	0.1942	0.0946	0.0996
1.6619	0.1798	0.0864	0.0934
1.7056	0.1643	0.0776	0.0867
1.7494	0.1476	0.0683	0.0794
1.7931	0.1298	0.0583	0.0715
1.8368	0.1106	0.0477	0.0629
1.8806	0.0903	0.0366	0.0537
1.9243	0.0686	0.0248	0.0438
1.9680	0.0456	0.0125	0.0331
2.0118	0.0212	-0.0004	0.0215
2.0216	0.0099	0.0099	0.0

ORIGINAL PAGE IS
OF POOR QUALITY

APPENDIX B
STAGE F BLADE ELEMENT AND OVERALL PERFORMANCE DATA

Rotor, rotor-stator, and Inlet Guide Vane (IGV) - rotor-stator, i.e., stage overall performance with uniform inlet, hub and tip radial distortion, and circumferential distortion are tabulated in tables B-1, B-5, and B-10 for Stage F. Rotor and stator blade element performance and flow distribution data for uniform inlet and hub and tip radial distortion are presented in tables B-3, B-6 and B-8, respectively, in SI (metric) units. Tables B-4, B-7, and B-9 present the same data in U.S. Customary Units. The flow distribution data with circumferential distortion of the inlet flow are given in tables B-11 in SI Units and B-12 in U.S. Customary Units for circumferential increments of 30 degrees around the compressor annulus. Table B-2 is presented to illustrate the differences at the near design point between values calculated from the data at the instrumentation stations and the values calculated from data that have been translated to the blade row leading and trailing edges. This table is presented in both SI and US Customary Units.

The blade element performance and flow distribution data with uniform inlet flow and radial distortion of the inlet flow are arranged in order of decreasing rotor speed and decreasing flow at each rotor speed. The flow distribution data with circumferential distortion of the inlet flow are given at the instrumentation station planes and are arranged for a given equivalent rotor speed and flow combination in order of increasing circumferential position. A design streamline circumferential flow shift was assumed for the distorted area as it passes through the compressor. This flow shift has been accounted for in the flow distribution data. The "deg" notation presented at the top of each data sheet in tables B-11 and B-12 is the streamline location relative to the centerline of the local undistorted region at each instrumentation station.

The nomenclature used in the tables is defined on the following pages.

NOMENCLATURE USED FOR OVERALL PERFORMANCE TABULATION

Mass-Averaged IGV Inlet Total Pressure	$\overline{P}_1$
Mass-Averaged Rotor Inlet Total Pressure	$\overline{P}_2$
Mass-Averaged Stator Inlet Total Pressure	$\overline{P}_3$
Mass-Averaged Stator Exit Total Pressure	$\overline{P}_4$
Adiabatic Efficiency*	η_{ad}
Polytropic Efficiency*	η_p

NOMENCLATURE USED FOR BLADE ELEMENT AND DISTORTION DATA TABULATION

Exit Percent Span From Tip	PCT SPAN
Exit Diameter	DIA
Absolute Flow Angle	BETA
Relative Flow Angle	BETA (PR)
Absolute Velocity	V
Axial Velocity	VZ
Absolute Tangential Velocity	V-THETA
Relative Tangential Velocity	V-THETA PR
Rotor Speed	U
Absolute Mach Number	M
Relative Mach Number	M (PR)
Relative Turning Angle	TURN (PR)
Loss Coefficient ($\overline{\omega}$)	UUBAR
Loss Parameter	LOSS PARA
Diffusion Factor	DFAC
Polytropic Efficiency	EFFP
Adiabatic Efficiency	EFF
Incidence	INCID
Deviation	DEVM
Total Pressure	P or PT
Static Pressure	PS
Total Temperature	T or TT

*Efficiencies calculated from mass-averaged values of total pressure and total temperature.

Where applicable the appropriate instrumentation station is noted.

Table B-1. Overall Performance of Stage F, Uniform Inlet

(IGV Inlet) Equivalent Weight Flow		Rotor			Rotor-Stator			IGV - Rotor-Stator		
kg/sec	lb/sec	$\overline{P}_3/\overline{P}_2$	η_{ad}	η_p	$\overline{P}_4/\overline{P}_2$	η_{ad}	η_p	$\overline{P}_4/\overline{P}_1$	η_{ad}	η_p
					100% Design Equivalent Rotor Speed					
18.25	40.23	1.490	0.796	0.807	1.419	0.691	0.706	1.415	0.685	0.700
17.78	39.19	1.583	0.902	0.908	1.543	0.847	0.856	1.542	0.845	0.854
17.26	38.04	1.596	0.918	0.923	1.559	0.867	0.875	1.556	0.863	0.871
16.75	36.94	1.587	0.908	0.914	1.554	0.862	0.871	1.552	0.860	0.868
16.22	35.76	1.594	0.899	0.906	1.565	0.858	0.867	1.562	0.855	0.864
15.70	34.62	1.593	0.901	0.908	1.553	0.847	0.857	1.551	0.844	0.853
					95% Design Equivalent Rotor Speed					
17.75	39.13	1.430	0.820	0.829	1.372	0.717	0.729	1.368	0.709	0.722
17.00	37.48	1.517	0.936	0.939	1.474	0.866	0.873	1.470	0.860	0.868
16.36	36.07	1.524	0.935	0.939	1.488	0.877	0.884	1.485	0.872	0.879
15.75	34.72	1.515	0.915	0.920	1.483	0.864	0.871	1.479	0.858	0.866
15.25	33.61	1.515	0.907	0.912	1.478	0.849	0.857	1.476	0.846	0.854
14.70	32.40	1.520	0.896	0.902	1.476	0.828	0.837	1.474	0.824	0.833
					85% Design Equivalent Rotor Speed					
16.70	36.81	1.332	0.864	0.869	1.299	0.784	0.791	1.297	0.778	0.786
15.78	34.78	1.391	0.943	0.946	1.368	0.891	0.896	1.365	0.887	0.891
14.92	32.88	1.395	0.934	0.937	1.369	0.876	0.881	1.367	0.872	0.877
13.95	30.75	1.397	0.913	0.917	1.376	0.869	0.875	1.374	0.865	0.871
13.01	28.68	1.402	0.903	0.907	1.377	0.851	0.858	1.376	0.849	0.856
12.61	27.80	1.402	0.893	0.898	1.373	0.834	0.841	1.372	0.832	0.839
					70% Design Equivalent Rotor Speed					
14.61	32.22	1.236	0.950	0.952	1.214	0.865	0.869	1.211	0.856	0.860
13.44	29.62	1.249	0.957	0.959	1.235	0.905	0.908	1.233	0.898	0.901
12.46	27.46	1.252	0.943	0.944	1.240	0.902	0.904	1.239	0.899	0.902
11.57	25.50	1.252	0.938	0.940	1.241	0.898	0.902	1.239	0.892	0.895
10.59	23.35	1.255	0.916	0.919	1.241	0.869	0.873	1.240	0.865	0.869
9.81	21.63	1.257	0.889	0.892	1.239	0.828	0.833	1.238	0.826	0.832
					50% Design Equivalent Rotor Speed					
10.73	23.65	1.116	0.950	0.951	1.108	0.890	0.890	1.107	0.881	0.882
9.89	21.81	1.117	0.956	0.957	1.112	0.913	0.914	1.111	0.906	0.907
9.14	20.15	1.119	0.921	0.922	1.114	0.884	0.886	1.113	0.878	0.880
8.47	18.67	1.120	0.916	0.917	1.115	0.875	0.877	1.114	0.869	0.871
7.73	17.04	1.123	0.927	0.928	1.117	0.888	0.890	1.117	0.884	0.886
6.92	15.25	1.125	0.908	0.910	1.118	0.853	0.855	1.117	0.851	0.853

Table B-2. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Calculations Using Untranslated Values
Percent Equivalent Rotor Speed = 99.51 Equivalent Rotor Speed = 9887.24 Equivalent Weight Flow = 17.255 kg/sec
Uniform Inlet
SI (Metric) Units

CDR=	1.026										
INLET GUIDE VANE	PCT SPAN	95.90	91.90	87.00	70.90	49.60	29.01	13.71	9.20	4.50	PCT SPAN
	DIA	0.425	0.430	0.437	0.460	0.490	0.519	0.540	0.547	0.553	DIA
STATION 1	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
STATION 2	BETA 2	11.250	10.900	10.730	11.420	12.100	12.400	12.400	12.400	12.400	BETA 2
	V 1	121.97	122.05	122.26	124.24	126.39	122.14	116.05	112.80	110.53	V 1
	V 2	154.03	154.94	155.53	157.13	157.83	155.69	151.16	149.08	147.19	V 2
	VZ 1	121.97	122.05	122.26	124.24	126.38	122.14	116.05	112.80	110.53	VZ 1
	VZ 2	151.07	152.14	152.79	153.89	153.98	151.41	146.74	144.63	142.70	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	30.05	29.30	28.95	31.09	33.01	33.29	32.26	31.80	31.37	V-THETA 2
	M 1	0.3631	0.3634	0.3640	0.3701	0.3766	0.3637	0.3451	0.3352	0.3285	M 1
	M 2	0.4622	0.4651	0.4669	0.4719	0.4741	0.4674	0.4532	0.4467	0.4409	M 2
	TURN	-11.25	-10.90	-10.73	-11.41	-12.07	-12.35	-12.32	-12.32	-12.31	TURN
	UUBAR	0.0442	0.0241	0.0160	0.0154	0.0372	0.0160	0.0178	0.0094	0.0147	UUBAR
	DFAC	-0.164	-0.173	-0.176	-0.163	-0.140	-0.159	-0.182	-0.197	-0.204	DFAC
	EFFP	0.9348	0.9644	0.9763	0.9765	0.9416	0.9766	0.9766	0.9883	0.9822	EFFP
	INCID	5.9000	5.9200	5.9700	6.2500	6.6600	7.0000	7.3200	7.4200	7.4200	INCID
	DEVM	5.750	6.401	6.952	7.389	8.167	9.263	10.376	10.754	10.973	DEVM
	P 1	10.100	10.103	10.111	10.153	10.203	10.153	10.075	10.033	10.004	P 1
	P 2	10.061	10.082	10.096	10.139	10.167	10.139	10.061	10.026	9.994	P 2
	T 1	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 1
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
ROTOR F	PCT SPAN	94.99	90.01	85.01	70.01	49.99	30.01	14.99	10.01	5.01	PCT SPAN
	DIA	0.425	0.430	0.436	0.452	0.475	0.497	0.514	0.519	0.525	DIA
STATION 2	BETA 2	11.250	10.900	10.730	11.420	12.100	12.400	12.400	12.400	12.400	BETA 2
STATION 3	BETA 3	63.010	60.310	57.700	48.780	47.450	47.750	50.600	52.780	54.400	BETA 3
	BETA(PR) 2	51.498	51.833	52.270	53.376	55.085	57.239	59.333	60.068	60.771	BETA(PR) 2
	BETA(PR) 3	-17.396	-12.109	-7.756	3.557	10.654	16.927	20.998	21.870	23.146	BETA(PR) 3
	V 2	154.03	154.94	155.53	157.13	157.83	155.69	151.16	149.08	147.19	V 2
	V 3	294.04	292.54	292.15	295.39	284.65	272.65	262.12	259.17	256.35	V 3
	VZ 2	151.07	152.14	152.79	153.89	153.98	151.41	146.74	144.63	142.70	VZ 2
	VZ 3	133.23	144.68	156.05	194.59	192.36	183.05	166.04	156.43	148.89	VZ 3
	V-THETA 2	30.05	29.30	28.95	31.09	33.01	33.29	32.26	31.80	31.37	V-THETA 2
	V-THETA 3	261.59	253.75	246.85	222.12	209.55	201.52	202.14	205.94	207.97	V-THETA 3
	V(PR) 2	242.7	246.2	249.7	258.0	269.2	280.2	288.2	290.4	292.8	V(PR) 2
	V(PR) 3	140.6	148.8	157.7	195.1	196.0	191.9	178.6	169.4	162.8	V(PR) 3
	VTHETA PR2	-189.9	-193.6	-197.5	-207.0	-220.6	-235.3	-247.9	-251.2	-255.0	VTHETA PR2
	VTHETA PR3	41.7	31.0	21.3	-12.1	-36.2	-55.7	-63.7	-62.8	-63.6	VTHETA PR3
	U 2	219.95	222.86	226.42	238.12	253.61	268.59	279.71	282.99	286.41	U 2
	U 3	219.85	222.71	225.59	234.22	245.74	257.23	265.87	268.74	271.61	U 3
	M 2	0.4622	0.4651	0.4669	0.4719	0.4741	0.4674	0.4532	0.4467	0.4409	M 2
	M 3	0.8524	0.8485	0.8467	0.8663	0.8326	0.7934	0.7572	0.7461	0.7354	M 3
	M(PR) 2	0.7282	0.7390	0.7496	0.7750	0.8088	0.8411	0.8640	0.8701	0.8770	M(PR) 2
	M(PR) 3	0.4077	0.4317	0.4581	0.5722	0.5734	0.5584	0.5166	0.4877	0.4672	M(PR) 3
	TURN(PR)	68.765	63.869	60.010	49.799	44.384	40.248	38.271	38.138	37.574	TURN(PR)
	UUBAR	0.4131	0.3621	0.3044	0.0389	0.0193	0.0440	0.1151	0.1575	0.1853	UUBAR
	LOSS PARA	0.1270	0.1157	0.1000	0.0134	0.0070	0.0163	0.0431	0.0594	0.0701	LOSS PARA
	DFAC	0.7277	0.6932	0.6571	0.4977	0.5073	0.5403	0.6086	0.6517	0.6830	DFAC
	EFFP	0.7643	0.7828	0.8137	0.9711	0.9840	0.9643	0.9106	0.8836	0.8578	EFFP
	EFF	0.7495	0.7690	0.8016	0.9691	0.9829	0.9619	0.9046	0.8759	0.8484	EFF
	INCID	-4.153	-2.569	-1.736	-0.466	0.572	1.674	2.502	2.344	1.562	INCID
	DEVM	16.633	14.062	12.254	11.555	8.438	7.375	9.601	10.856	13.407	DEVM
	P 2	10.061	10.082	10.096	10.139	10.167	10.139	10.061	10.026	9.994	P 2
	P 3	15.551	15.658	15.813	16.528	16.415	16.167	15.866	15.785	15.714	P 3
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	T 3	339.111	338.389	337.333	332.722	331.167	330.889	332.444	333.722	335.055	T 3
STATOR F	PCT SPAN	96.20	92.50	86.80	70.80	49.89	29.71	13.99	9.40	5.00	PCT SPAN
	DIA	0.423	0.426	0.431	0.446	0.466	0.485	0.500	0.504	0.508	DIA
STATION 3	BETA 3	63.010	60.310	57.700	48.780	47.450	47.750	50.600	52.780	54.400	BETA 3
STATION 4	BETA 4	9.840	10.140	10.550	11.300	11.350	10.970	10.550	10.410	10.270	BETA 4
	V 3	294.04	292.54	292.15	295.39	284.65	272.65	262.12	259.17	256.35	V 3
	V 4	176.87	180.84	187.31	207.45	206.32	200.00	196.94	198.24	199.61	V 4
	VZ 3	133.23	144.68	156.05	194.59	192.36	183.05	166.04	156.43	148.89	VZ 3
	VZ 4	174.26	178.01	184.13	203.39	202.18	196.19	193.40	194.75	196.18	VZ 4
	V-THETA 3	261.59	253.75	246.85	222.12	209.55	201.52	202.14	205.94	207.97	V-THETA 3
	V-THETA 4	30.23	31.84	34.29	40.64	40.58	38.03	36.02	35.78	35.54	V-THETA 4
	M 3	0.8524	0.8485	0.8467	0.8663	0.8326	0.7934	0.7572	0.7461	0.7354	M 3
	M 4	0.4905	0.5026	0.5224	0.5865	0.5846	0.5658	0.5552	0.5579	0.5608	M 4
	TURN(PR)	52.987	50.021	47.115	37.462	36.061	36.696	39.920	42.222	43.961	TURN(PR)
	UUBAR	0.0578	0.0554	0.0476	0.0487	0.0590	0.0889	0.0896	0.0784	0.0686	UUBAR
	LOSS PARA	0.0182	0.0176	0.0154	0.0163	0.0208	0.0329	0.0344	0.0304	0.0269	LOSS PARA
	DFAC	0.6507	0.6284	0.5991	0.5098	0.4917	0.4967	0.5013	0.4998	0.4956	DFAC
	EFFP	0.9289	0.9296	0.9366	0.9259	0.9023	0.8456	0.8316	0.8450	0.8567	EFFP
	INCID	-2.173	0.761	1.865	-3.540	-5.194	-6.893	-7.042	-6.080	-5.982	INCID
	DEVM	15.090	16.140	16.350	16.048	15.445	14.961	14.539	13.598	12.557	DEVM
	P 3	15.551	15.658	15.813	16.528	16.415	16.167	15.866	15.785	15.714	P 3
	P 4	15.212	15.332	15.530	16.216	16.061	15.679	15.417	15.403	15.389	P 4
	T 3	339.111	338.389	337.333	332.722	331.167	330.889	332.444	333.722	335.055	T 3
	T 4	339.111	338.389	337.333	332.722	331.167	330.889	332.444	333.722	335.055	T 4

ORIGINAL PAGE IS
OF POOR QUALITY

Table B-2. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Calculations Using Untranslated Values
Percent Equivalent Rotor Speed = 99.51 Equivalent Rotor Speed = 9887.24 Equivalent Weight Flow = 38.040 lb/sec
Uniform Inlet
U.S. Customary Units

COR=	1.026										
INLET GUIDE VANE	PCT SPAN	95.40	91.90	87.00	70.90	49.60	29.01	13.71	9.20	4.50	PCT SPAN
	DIA	16.727	16.948	17.219	18.109	19.287	20.426	21.272	21.521	21.781	DIA
STATION 1	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
STATION 2	BETA 2	11.250	10.900	10.730	11.420	12.100	12.400	12.400	12.400	12.400	BETA 2
	V 1	400.16	400.42	401.11	407.62	414.65	400.73	380.75	370.07	362.63	V 1
	V 2	505.34	508.34	510.28	515.50	517.82	510.78	495.92	489.10	482.92	V 2
	VZ 1	400.16	400.42	401.11	407.62	414.65	400.73	380.75	370.07	362.63	VZ 1
	VZ 2	495.62	499.14	501.27	504.89	505.19	496.77	481.42	474.50	468.16	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	98.59	96.12	94.99	101.99	108.30	109.22	105.85	104.33	102.44	V-THETA 2
	M 1	0.3631	0.3634	0.3640	0.3701	0.3766	0.3637	0.3451	0.3352	0.3283	M 1
	M 2	0.4622	0.4651	0.4669	0.4719	0.4741	0.4674	0.4532	0.4467	0.4409	M 2
	TURN	-11.25	-10.90	-10.73	-11.41	-12.07	-12.35	-12.32	-12.32	-12.31	TURN
	UUBAR	0.0442	0.0241	0.0180	0.0154	0.0372	0.0160	0.0176	0.0094	0.0147	UUBAR
	DFAC	-0.164	-0.173	-0.176	-0.163	-0.140	-0.159	-0.182	-0.147	-0.204	DFAC
	EFFP	0.9348	0.9644	0.9763	0.9765	0.9416	0.9766	0.9766	0.9883	0.9822	EFFP
	INCID	5.9000	5.9200	5.9700	6.2500	6.6600	7.0000	7.3200	7.4200	7.4200	INCID
	DEVM	5.750	6.401	6.952	7.389	8.167	9.263	10.376	10.734	10.973	DEVM
	P 1	14.649	14.654	14.664	14.726	14.797	14.726	14.613	14.551	14.510	P 1
	P 2	14.592	14.623	14.643	14.705	14.746	14.705	14.592	14.541	14.495	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
ROTOR F	PCT SPAN	94.99	90.01	85.01	70.01	49.99	30.01	14.99	10.01	5.01	PCT SPAN
	DIA	16.719	16.937	17.156	17.812	18.688	19.562	20.219	20.437	20.656	DIA
STATION 2	BETA 2	11.250	10.900	10.730	11.420	12.100	12.400	12.400	12.400	12.400	BETA 2
STATION 3	BETA 3	63.010	60.310	57.700	48.780	47.450	47.750	50.600	52.780	54.400	BETA 3
	BETA(PR) 2	51.498	51.833	52.270	53.376	55.065	57.259	59.333	60.068	60.771	BETA(PR) 2
	BETA(PR) 3	-17.396	-12.109	-7.756	3.557	10.654	16.427	20.998	21.870	23.146	BETA(PR) 3
	V 2	505.34	508.34	510.28	515.50	517.82	510.78	495.92	489.10	482.92	V 2
	V 3	964.70	959.76	958.49	969.13	933.90	894.51	859.99	850.30	841.06	V 3
	VZ 2	495.62	499.14	501.27	504.89	505.19	496.77	481.42	474.50	468.16	VZ 2
	VZ 3	437.10	474.67	511.98	638.42	631.09	600.55	544.75	513.23	488.48	VZ 3
	V-THETA 2	98.59	96.12	94.99	101.99	108.30	109.22	105.85	104.33	102.44	V-THETA 2
	V-THETA 3	858.22	832.52	809.86	728.74	687.51	661.16	663.19	675.67	682.31	V-THETA 3
	V(PR) 2	796.1	807.7	819.2	840.6	883.3	919.2	945.4	952.6	960.6	V(PR) 2
	V(PR) 3	461.4	488.3	517.4	640.1	643.1	629.6	586.1	555.8	534.3	V(PR) 3
	VTHETA PR2	-623.0	-655.0	-647.9	-679.3	-723.8	-772.0	-811.9	-824.1	-836.7	VTHETA PR2
	VTHETA PR3	136.9	101.8	69.7	-39.7	-118.7	-182.8	-209.1	-206.0	-208.8	VTHETA PR3
	U 2	721.62	731.16	742.85	781.24	832.06	881.20	917.70	928.44	939.66	U 2
	U 3	721.28	730.68	740.13	768.43	806.22	843.93	872.27	881.68	891.13	U 3
	M 2	0.4622	0.4651	0.4669	0.4719	0.4741	0.4674	0.4532	0.4467	0.4409	M 2
	M 3	0.8524	0.8485	0.8487	0.8663	0.8326	0.7934	0.7572	0.7461	0.7354	M 3
	M(PR) 2	0.7282	0.7390	0.7496	0.7750	0.8088	0.8411	0.8640	0.8701	0.8770	M(PR) 2
	M(PR) 3	0.4077	0.4317	0.4581	0.5722	0.5734	0.5584	0.5160	0.4877	0.4672	M(PR) 3
	TURN(PR)	66.765	63.669	60.610	49.799	44.384	40.248	38.271	38.138	37.574	TURN(PR)
	UUBAR	0.4131	0.3621	0.3044	0.0389	0.0193	0.0440	0.1151	0.1575	0.1853	UUBAR
	LOSS PARA	0.1270	0.1157	0.1000	0.0134	0.0070	0.0163	0.0431	0.0594	0.0701	LOSS PARA
	DFAC	0.7277	0.6932	0.6571	0.4977	0.5073	0.5403	0.6086	0.6517	0.6830	DFAC
	EFFP	0.7643	0.7828	0.8137	0.9711	0.9840	0.9843	0.9106	0.8836	0.8578	EFFP
	EFF	0.7495	0.7690	0.8016	0.9691	0.9829	0.9619	0.9046	0.8759	0.8484	EFF
	INCID	-4.153	-2.569	-1.736	-0.466	0.572	1.674	2.502	2.344	1.582	INCID
	DEVM	10.633	14.062	12.254	11.555	8.438	7.375	9.601	10.856	13.407	DEVM
	P 2	14.592	14.623	14.643	14.705	14.746	14.705	14.592	14.541	14.495	P 2
	P 3	22.555	22.709	22.935	23.971	23.807	23.448	23.012	22.894	22.791	P 3
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	T 3	610.400	609.100	607.200	598.900	596.100	595.600	598.400	600.700	603.100	T 3
STATOR F	PCT SPAN	96.20	92.50	86.80	70.80	49.89	29.71	13.99	9.40	5.00	PCT SPAN
	DIA	16.640	16.776	16.986	17.575	18.345	19.088	19.667	19.836	19.998	DIA
STATION 3	BETA 3	63.010	60.310	57.700	48.780	47.450	47.750	50.600	52.780	54.400	BETA 3
STATION 4	BETA 4	9.840	10.140	10.550	11.300	11.350	10.970	10.550	10.410	10.270	BETA 4
	V 3	964.70	959.76	958.49	969.13	933.90	894.51	859.99	850.30	841.06	V 3
	V 4	580.27	593.31	614.53	680.63	676.89	656.18	646.12	650.39	654.90	V 4
	VZ 3	437.10	474.67	511.98	638.42	631.09	600.55	544.75	513.23	488.48	VZ 3
	VZ 4	571.73	584.04	604.11	667.30	663.33	643.66	634.51	638.99	643.62	VZ 4
	V-THETA 3	858.22	832.52	809.86	728.74	687.51	661.16	663.19	675.67	682.31	V-THETA 3
	V-THETA 4	99.17	104.45	112.51	133.34	133.15	124.77	118.17	117.38	116.62	V-THETA 4
	M 3	0.8524	0.8485	0.8487	0.8663	0.8326	0.7934	0.7572	0.7461	0.7354	M 3
	M 4	0.4905	0.5026	0.5224	0.5865	0.5846	0.5658	0.5552	0.5579	0.5608	M 4
	TURN(PR)	52.967	50.021	47.115	37.462	36.061	36.696	39.920	42.222	43.961	TURN(PR)
	UUBAR	0.0578	0.0554	0.0476	0.0487	0.0590	0.0889	0.0896	0.0784	0.0686	UUBAR
	LOSS PARA	0.0182	0.0176	0.0154	0.0163	0.0208	0.0329	0.0344	0.0304	0.0269	LOSS PARA
	DFAC	0.6507	0.6284	0.5991	0.5098	0.4917	0.4967	0.5013	0.4998	0.4957	DFAC
	EFFP	0.9289	0.9296	0.9366	0.9259	0.9023	0.8450	0.8316	0.8450	0.8567	EFFP
	INCID	-2.173	0.761	1.865	-3.540	-5.194	-6.893	-7.042	-6.080	-5.987	INCID
	DEVM	15.090	16.140	16.350	16.048	15.445	14.961	14.539	13.598	12.551	DEVM
	P 3	22.555	22.709	22.935	23.971	23.807	23.448	23.012	22.894	22.791	P 3
	P 4	22.063	22.237	22.525	23.520	23.294	22.740	22.360	22.340	22.319	P 4
	T 3	610.400	609.100	607.200	598.900	596.100	595.600	598.400	600.700	603.100	T 3
	T 4	610.400	609.100	607.200	598.900	596.100	595.600	598.400	600.700	603.100	T 4

Table B-3. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 100.06 Equivalent Rotor Speed = 9941.89 Equivalent Weight Flow = 18.249 kg/sec
Uniform Inlet
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	95.79	91.71	86.89	70.41	49.21	29.10	13.80	9.00	4.70	PCT SPAN
	DIA	0.425	0.432	0.439	0.464	0.495	0.526	0.549	0.556	0.562	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	12.417	12.059	11.759	11.913	13.162	13.307	13.943	14.498	15.365	BETA 2
	V 1	133.65	132.48	133.05	133.78	134.24	130.75	122.65	118.08	114.79	V 1
	V 2	151.55	153.35	154.75	155.78	154.81	151.71	146.63	144.20	141.75	V 2
	VZ 1	133.65	132.47	133.03	133.73	134.10	130.51	122.34	117.76	114.45	VZ 1
	VZ 2	148.01	149.95	151.47	152.78	150.32	146.87	141.24	138.45	135.44	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	32.59	32.03	31.53	32.13	35.15	34.74	35.07	35.80	37.22	V-THETA 2
	M 1	0.3990	0.3953	0.3971	0.3994	0.4008	0.3900	0.3652	0.3512	0.3412	M 1
	M 2	0.4545	0.4601	0.4665	0.4677	0.4646	0.4550	0.4391	0.4316	0.4240	M 2
	TURN	-12.42	-12.06	-11.76	-11.90	-13.17	-13.24	-13.84	-14.37	-15.22	TURN
	UUBAR	0.0679	0.0414	0.0205	0.0067	0.0200	0.0351	0.0401	0.0304	0.0461	UUBAR
	DFAC	-0.036	-0.060	-0.067	-0.066	-0.044	-0.047	-0.071	-0.086	-0.088	DFAC
	EFFP	0.8187	0.8981	0.9487	0.9828	0.9467	0.9137	0.9192	0.9449	0.9233	EFFP
	INCID	5.9000	5.9200	5.9700	6.2500	6.6600	7.0000	7.3200	7.4200	7.4200	INCID
	DEVM	4.583	5.243	5.923	6.899	7.116	8.374	8.864	8.675	8.058	DEVM
	P 1	10.091	10.098	10.113	10.148	10.191	10.177	10.084	10.074	9.985	P 1
	P 2	10.020	10.056	10.091	10.141	10.170	10.141	10.049	9.999	9.949	P 2
	T 1	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 1
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	UUBAR FS										UUBAR FS
	P1 FS										P1 FS
	LOSS PARA FS										LOSS PARA FS
ROTOR F	PCT SPAN	95.01	89.99	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA	0.425	0.430	0.436	0.453	0.475	0.498	0.515	0.520	0.526	DIA
ROTOR -L.E.	BETA 2	9.269	9.182	8.997	9.143	10.025	10.145	10.705	11.164	11.836	BETA 2
ROTOR -T.E.	BETA 3	66.297	61.453	58.456	49.317	48.930	48.846	50.565	52.130	53.960	BETA 3
	BETA(PR) 2	43.206	43.814	44.210	46.238	46.739	46.893	51.041	51.873	52.673	BETA(PR) 2
	BETA(PR) 3	-20.555	-12.591	-7.885	5.027	13.432	19.800	22.600	23.682	25.196	BETA(PR) 3
	V 2	202.93	201.87	203.05	205.69	207.01	204.27	197.34	193.75	190.21	V 2
	V 3	289.40	290.68	291.12	285.46	271.86	262.18	258.96	256.40	252.81	V 3
	VZ 2	200.28	199.29	200.54	202.98	203.42	200.24	192.77	189.88	184.89	VZ 2
	VZ 3	116.19	138.73	152.26	186.03	178.47	177.27	164.14	157.04	148.39	VZ 3
	V-THETA 2	32.69	32.21	31.75	32.67	35.96	35.83	36.44	37.28	38.75	V-THETA 2
	V-THETA 3	264.66	255.01	248.03	216.41	204.80	197.11	199.58	201.95	203.95	V-THETA 3
	V(PR) 2	274.5	276.2	279.8	288.3	297.1	305.1	307.3	306.7	305.7	V(PR) 2
	V(PR) 3	124.9	142.9	153.9	187.2	183.8	183.7	176.6	172.3	164.9	V(PR) 3
	VTHETA PR2	-188.1	-191.2	-194.1	-204.7	-216.2	-229.5	-238.4	-240.7	-242.5	VTHETA PR2
	VTHETA PR3	43.6	31.0	21.1	-19.3	-42.6	-62.0	-68.3	-68.9	-69.8	VTHETA PR3
	U 2	220.80	223.41	226.84	237.34	252.12	265.32	274.85	277.93	281.21	U 2
	U 3	221.09	224.02	226.94	235.72	247.43	259.13	267.91	270.83	273.76	U 3
	M 2	0.6187	0.6153	0.6191	0.6278	0.6232	0.6232	0.6005	0.5888	0.5773	M 2
	M 3	0.8368	0.8424	0.8456	0.8349	0.7922	0.7609	0.7483	0.7391	0.7268	M 3
	M(PR) 2	0.8378	0.8417	0.8531	0.8800	0.9074	0.9308	0.9351	0.9320	0.9274	M(PR) 2
	M(PR) 3	0.3612	0.4142	0.4469	0.5474	0.5356	0.5330	0.5161	0.4968	0.4741	M(PR) 3
	TURN(PR)	63.619	56.337	52.086	39.301	33.269	29.035	28.377	28.132	27.425	TURN(PR)
	UUBAR	0.5344	0.4437	0.3680	0.1687	0.1697	0.1735	0.1845	0.2031	0.2227	UUBAR
	LOSS PARA	0.1612	0.1415	0.1209	0.0582	0.0605	0.0631	0.0684	0.0756	0.0829	LOSS PARA
	DFAC	0.8175	0.7465	0.7045	0.5708	0.5871	0.5990	0.6281	0.6522	0.6715	DFAC
	EFFP	0.6151	0.6700	0.7251	0.8521	0.8374	0.8300	0.8275	0.8143	0.7978	EFFP
	EFF	0.8556	0.8521	0.7093	0.8431	0.8281	0.8204	0.8174	0.8034	0.7869	EFF
	INCID	-12.444	-10.586	-9.791	-6.597	-7.773	-6.679	-6.799	-6.861	-6.526	INCID
	DEVM	13.487	13.578	12.123	13.923	11.205	10.236	11.194	12.657	15.449	DEVM
	P 2	10.020	10.056	10.091	10.141	10.170	10.141	10.049	9.999	9.949	P 2
	P 3	14.242	14.656	15.027	15.401	15.112	14.991	15.062	14.998	14.884	P 3
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	T 3	339.305	338.389	337.111	331.500	329.861	329.667	331.389	332.222	332.889	T 3
STATOR F	PCT SPAN	95.81	97.01	86.21	69.81	49.21	29.51	14.11	9.31	4.51	PCT SPAN
	DIA	0.423	0.427	0.432	0.448	0.488	0.487	0.502	0.506	0.511	DIA
STATOR-L.E.	BETA 3	66.870	60.524	56.561	46.976	46.719	46.774	48.493	50.051	51.690	BETA 3
STATOR-T.E.	BETA 4	3.104	3.522	4.080	5.242	4.405	5.852	10.031	11.658	13.544	BETA 4
	V 3	287.86	293.07	297.38	296.30	281.44	271.74	267.87	264.62	260.74	V 3
	V 4	300.08	307.60	309.80	305.00	290.64	280.52	278.54	274.15	272.92	V 4
	VZ 3	113.08	144.21	163.86	202.10	192.77	185.77	177.08	169.66	160.49	VZ 3
	VZ 4	305.61	306.98	308.95	303.52	288.69	287.30	275.08	267.12	264.75	VZ 4
	V-THETA 3	264.72	255.13	248.13	216.55	204.70	197.65	200.10	202.56	204.60	V-THETA 3
	V-THETA 4	16.74	18.90	22.04	28.38	23.01	29.44	48.66	55.11	58.91	V-THETA 4
	M 3	0.8317	0.8503	0.8665	0.8712	0.8238	0.7920	0.7771	0.7664	0.7521	M 3
	M 4	0.6027	0.6990	0.6985	0.6909	0.8862	0.8511	0.8187	0.7965	0.7916	M 4
	TURN(PR)	63.765	57.000	52.475	41.618	42.265	40.828	38.344	38.274	38.228	TURN(PR)
	UUBAR	0.1783	0.1742	0.1420	0.1144	0.1154	0.1157	0.1580	0.1638	0.1644	UUBAR
	LOSS PARA	0.0569	0.0562	0.0465	0.0389	0.0414	0.0434	0.0608	0.0633	0.0660	LOSS PARA
	DFAC	0.2021	0.2120	0.2088	0.1891	0.1689	0.1711	0.1777	0.1895	0.1812	DFAC
	EFFP	1.6981	2.3100	2.2533	2.4339	1.6505	1.6880	2.2969	2.2487	2.3892	EFFP
	INCID	1.870	1.122	0.765	-5.343	-5.936	-7.885	-9.168	-8.878	-8.507	INCID
	DEVM	8.354	9.522	9.870	10.089	8.490	9.837	13.988	14.798	14.766	DEVM
	P 3	14.243	14.656	15.027	15.401	15.112	14.991	15.062	14.998	14.884	P 3
	P 4	13.317	13.695	14.201	14.713	14.485	14.404	14.278	14.208	14.119	P 4
	T 3	339.305	338.389	337.111	331.500	329.861	329.667	331.389	332.222	332.889	T 3
	T 4	339.305	338.389	337.111	331.500	329.861	329.667	331.389	332.222	332.889	T 4

ORIGINAL PAGE IS
OF POOR QUALITY

Table B-3. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 99.48 Equivalent Rotor Speed = 9884.80 Equivalent Weight Flow = 17.779 kg/sec
Uniform Inlet
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	95.79	91.71	86.69	70.41	49.21	29.10	13.80	9.00	4.70	PCT SPAN
	DIA	0.425	0.432	0.439	0.464	0.495	0.526	0.549	0.556	0.562	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	12.419	12.094	11.880	12.326	12.951	13.454	14.013	14.482	15.204	BETA 2
	V 1	127.90	127.14	127.38	128.60	131.05	124.99	118.10	114.03	111.38	V 1
	V 2	146.84	148.70	149.58	151.00	149.95	146.60	141.78	139.55	137.84	V 2
	VZ 1	127.90	127.14	127.37	128.55	130.91	124.76	117.80	114.32	111.05	VZ 1
	VZ 2	143.40	145.39	146.35	147.37	145.73	141.84	136.52	133.99	131.61	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	31.58	31.15	30.74	32.20	33.51	33.93	34.07	34.61	35.83	V-THETA 2
	M 1	0.3813	0.3790	0.3797	0.3834	0.3909	0.3723	0.3513	0.3407	0.3309	M 1
	M 2	0.4398	0.4456	0.4483	0.4527	0.4495	0.4390	0.4241	0.4172	0.4119	M 2
	TURN	-12.42	-12.09	-11.88	-12.31	-12.91	-13.38	-13.91	-14.36	-15.07	TURN
	UUBAR	0.0480	0.0224	0.0074	-0.0145	0.0279	0.0	0.0086	0.0092	0.0	UUBAR
	DFAC	-0.049	-0.071	-0.076	-0.072	-0.037	-0.057	-0.075	-0.083	-0.092	DFAC
	EFFP	0.8761	0.9461	0.9819	1.0371	0.9225	0.9999	0.9818	0.9823	0.9999	EFFP
	INCID	5.9000	5.9200	5.9700	6.2500	6.6600	7.0000	7.3200	7.4200	7.4200	INCID
	DEVM	4.581	5.207	5.803	6.486	7.325	8.227	8.795	8.691	8.212	DEVM
	P 1	10.097	10.107	10.114	10.150	10.214	10.150	10.072	10.029	9.990	P 1
	P 2	10.050	10.086	10.107	10.164	10.186	10.150	10.065	10.022	9.990	P 2
	T 1	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 1
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	UUBAR FS										UUBAR FS
	P1 FS										P1 FS
	LOSS PARA FS										LOSS PARA FS
ROTOR F	PCT SPAN	95.01	89.99	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA	0.425	0.430	0.436	0.453	0.475	0.496	0.515	0.520	0.526	DIA
ROTOR -L.E.	BETA 2	9.348	9.279	9.166	9.537	9.955	10.352	10.850	11.238	11.790	BETA 2
ROTOR -T.E.	BETA 3	63.909	61.545	58.891	50.121	48.283	49.272	53.361	55.346	56.796	BETA 3
	BETA(PR) 2	44.314	44.861	45.356	46.198	47.927	50.056	52.184	52.956	53.585	BETA(PR) 2
	BETA(PR) 3	-19.127	-13.588	-8.551	3.376	11.521	17.638	21.490	22.836	24.411	BETA(PR) 3
	V 2	195.00	194.28	194.63	197.74	198.74	195.58	189.21	186.09	183.84	V 2
	V 3	295.27	291.91	289.92	291.14	279.11	267.31	257.25	254.03	251.31	V 3
	VZ 2	192.41	191.73	192.13	194.91	195.34	191.60	184.74	181.37	176.73	VZ 2
	VZ 3	129.67	138.91	149.75	186.62	185.59	174.15	153.24	144.17	137.36	VZ 3
	V-THETA 2	31.67	31.33	31.00	32.74	34.29	35.00	35.41	36.03	37.31	V-THETA 2
	V-THETA 3	264.74	256.31	248.16	223.36	208.18	202.27	208.04	208.56	209.65	V-THETA 3
	V(PR) 2	268.9	270.5	273.4	281.7	291.8	299.0	301.9	301.8	301.6	V(PR) 2
	V(PR) 3	138.2	143.7	151.6	187.1	189.7	183.3	165.4	157.2	151.7	V(PR) 3
	VTHETA PR2	-187.9	-190.8	-194.5	-203.2	-216.4	-228.6	-237.9	-240.3	-242.3	VTHETA PR2
	VTHETA PR3	45.0	33.6	22.5	-11.0	-37.8	-55.4	-60.3	-60.7	-62.3	VTHETA PR3
	U 2	219.53	222.13	225.54	235.97	250.67	263.79	273.27	276.33	279.59	U 2
	U 3	219.82	222.74	225.64	234.37	246.00	257.64	266.37	269.27	272.19	U 3
	M 2	0.5928	0.5905	0.5916	0.6018	0.6050	0.5947	0.5740	0.5640	0.5567	M 2
	M 3	0.8559	0.8461	0.8415	0.8521	0.8149	0.7759	0.7407	0.7294	0.7200	M 3
	M(PR) 2	0.8175	0.8221	0.8311	0.8571	0.8883	0.9091	0.9158	0.9140	0.9141	M(PR) 2
	M(PR) 3	0.4005	0.4164	0.4400	0.5475	0.5539	0.5322	0.4763	0.4514	0.4346	M(PR) 3
	TURN(PR)	63.308	58.375	53.897	42.806	36.384	32.355	30.608	30.059	29.121	TURN(PR)
	UUBAR	0.4065	0.3556	0.2880	0.0394	0.0211	0.0623	0.1455	0.1732	0.1858	UUBAR
	LOSS PARA	0.1237	0.1129	0.0944	0.0136	0.0076	0.0230	0.0544	0.0649	0.0696	LOSS PARA
	DFAC	0.7656	0.7411	0.7090	0.5693	0.5656	0.5996	0.6749	0.7071	0.7281	DFAC
	EFFP	0.7211	0.7479	0.7928	0.9667	0.9790	0.9440	0.8746	0.8556	0.8425	EFFP
	EFF	0.7044	0.7325	0.7797	0.9643	0.9776	0.9403	0.8665	0.8468	0.8324	EFF
	INCID	-11.336	-9.539	-8.646	-7.037	-6.585	-5.515	-4.674	-4.776	-5.612	INCID
	DEVM	14.906	12.586	11.456	11.374	9.302	8.080	10.088	11.815	14.067	DEVM
	P 2	10.050	10.086	10.107	10.164	10.186	10.150	10.065	10.022	9.990	P 2
	P 3	15.207	15.385	15.635	16.532	16.329	16.026	15.685	15.585	15.521	P 3
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	T 3	339.555	338.611	337.222	332.722	330.722	330.889	333.111	333.944	334.611	T 3
STATOR F	PCT SPAN	95.81	92.01	86.21	69.91	49.21	29.51	14.11	9.31	4.51	PCT SPAN
	DIA	0.423	0.427	0.432	0.448	0.468	0.487	0.502	0.506	0.511	DIA
STATOR-L.E.	BETA 3	64.472	60.627	56.988	47.398	45.825	47.018	51.149	53.105	54.561	BETA 3
STATOR-T.E.	BETA 4	8.131	8.767	9.693	10.930	10.526	10.410	10.129	10.167	10.339	BETA 4
	V 3	293.51	294.27	296.08	303.73	290.39	277.75	265.86	262.17	259.01	V 3
	V 4	187.36	191.89	199.53	221.75	220.23	210.90	205.29	204.88	204.77	V 4
	VZ 3	126.49	144.33	161.29	205.53	202.17	189.02	166.40	157.03	149.63	VZ 3
	VZ 4	185.47	189.62	196.64	217.62	216.27	206.93	201.23	200.61	200.17	VZ 4
	V-THETA 3	264.85	256.43	248.26	223.50	208.08	202.83	206.58	209.19	210.52	V-THETA 3
	V-THETA 4	26.50	29.24	33.59	42.02	40.18	38.01	35.95	36.05	36.52	V-THETA 4
	M 3	0.8500	0.8539	0.8620	0.8947	0.8525	0.8101	0.7683	0.7554	0.7445	M 3
	M 4	0.5208	0.5349	0.5587	0.6301	0.6274	0.5987	0.5796	0.5776	0.5767	M 4
	TURN(PR)	56.340	51.859	47.291	36.455	35.257	36.524	40.904	42.747	44.097	TURN(PR)
	UUBAR	0.0348	0.0379	0.0403	0.0542	0.0548	0.0951	0.1025	0.0929	0.0835	UUBAR
	LOSS PARA	0.0110	0.0121	0.0130	0.0182	0.0194	0.0353	0.0394	0.0361	0.0327	LOSS PARA
	DFAC	0.6217	0.5986	0.5652	0.4757	0.4521	0.4676	0.4826	0.4837	0.4821	DFAC
	EFFP	0.9541	0.9487	0.9428	0.9119	0.9001	0.8209	0.7932	0.8049	0.8174	EFFP
	INCID	-0.529	1.225	1.182	-4.921	-6.830	-7.642	-6.510	-5.770	-5.830	INCID
	DEVM	13.381	14.766	15.491	15.674	14.613	14.384	14.086	13.334	12.573	DEVM
	P 3	15.207	15.385	15.635	16.532	16.329	16.026	15.685	15.585	15.521	P 3
	P 4	15.008	15.165	15.393	16.169	15.991	15.492	15.165	15.129	15.122	P 4
	T 3	339.555	338.611	337.222	332.722	330.722	330.889	333.111	333.944	334.611	T 3
	T 4	339.555	338.611	337.222	332.722	330.722	330.889	333.111	333.944	334.611	T 4

Table B-3. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 99.51 Equivalent Rotor Speed = 9887.24 Equivalent Weight Flow = 17.255 kg/sec
Uniform Inlet
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	95.79	91.71	86.89	70.41	49.21	29.10	13.60	9.00	4.70	PCT SPAN
	DIA	0.425	0.432	0.439	0.464	0.495	0.526	0.549	0.556	0.562	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	12.233	11.800	11.596	12.321	13.119	13.513	13.527	13.517	13.530	BETA 2
	V 1	124.90	123.77	123.96	125.64	127.13	121.79	114.68	111.14	108.59	V 1
	V 2	141.63	142.92	143.59	144.68	144.21	141.34	136.85	134.90	133.14	V 2
	VZ 1	124.89	123.76	123.95	125.59	127.00	121.57	114.39	110.84	108.27	VZ 1
	VZ 2	138.41	139.89	140.63	141.21	140.05	136.71	132.05	130.07	128.26	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	30.01	29.22	28.86	30.84	32.64	32.85	31.77	31.27	30.66	V-THETA 2
	M 1	0.3721	0.3686	0.3692	0.3743	0.3789	0.3626	0.3409	0.3301	0.3224	M 1
	M 2	0.4236	0.4276	0.4297	0.4331	0.4316	0.4227	0.4088	0.4028	0.3974	M 2
	TURN	-12.23	-11.80	-11.59	-12.31	-13.08	-13.44	-13.42	-13.40	-13.40	TURN
	UUBAR	0.0423	0.0235	0.0156	0.0151	0.0368	0.0160	0.0162	0.0097	0.0153	UUBAR
	DFAC	-0.037	-0.059	-0.064	-0.051	-0.027	-0.045	-0.073	-0.089	-0.097	DFAC
	EFFP	0.8781	0.9361	0.9590	0.9583	0.8927	0.9583	0.9610	0.9809	0.9720	EFFP
	INCID	5.9000	5.9200	5.9700	6.2500	6.6600	7.0000	7.3200	7.4200	7.4200	INCID
	DEVM	4.767	5.502	6.086	6.491	7.159	8.169	9.277	9.648	9.877	DEVM
	P 1	10.100	10.103	10.111	10.153	10.203	10.153	10.075	10.033	10.004	P 1
	P 2	10.061	10.082	10.096	10.139	10.167	10.139	10.061	10.026	9.994	P 2
	T 1	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 1
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	UUBAR FS										UUBAR FS
	P1 FS										P1 FS
	LOSS PARA FS										LOSS PARA FS
ROTOR F	PCT SPAN	95.01	89.99	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA	0.425	0.430	0.436	0.453	0.475	0.498	0.515	0.520	0.526	DIA
ROTOR -L.E.	BETA 2	9.267	9.133	9.027	9.627	10.179	10.488	10.554	10.565	10.568	BETA 2
ROTOR -T.E.	BETA 3	63.073	61.506	59.596	51.030	44.711	44.991	52.947	55.281	57.011	BETA 3
	BETA(PK) 2	45.829	46.526	47.057	47.905	49.449	51.479	53.596	54.402	55.171	BETA(PK) 2
	BETA(PK) 3	-17.420	-12.637	-8.266	3.985	11.717	18.518	23.026	24.156	25.089	BETA(PK) 3
	V 2	186.52	185.14	185.21	187.04	189.33	186.95	181.32	178.71	176.41	V 2
	V 3	293.82	284.00	286.15	285.52	274.55	263.00	253.23	250.47	247.85	V 3
	VZ 2	184.08	182.79	182.91	184.90	185.96	183.06	177.21	174.56	172.22	VZ 2
	VZ 3	132.85	137.69	144.78	179.52	177.41	168.84	152.29	142.38	134.68	VZ 3
	V-THETA 2	30.10	29.39	29.06	31.36	33.39	33.89	33.01	32.56	32.13	V-THETA 2
	V-THETA 3	261.55	253.66	246.73	221.92	209.27	201.15	201.71	205.48	207.48	V-THETA 3
	V(PR) 2	264.2	265.7	268.5	275.9	286.3	294.4	299.2	300.6	302.3	V(PR) 2
	V(PR) 3	140.2	141.9	146.5	180.1	181.5	178.6	166.2	156.8	150.3	V(PR) 3
	VTHETA PR2	-189.5	-192.8	-196.5	-204.7	-217.3	-230.6	-240.3	-243.8	-247.5	VTHETA PR2
	VTHETA PR3	41.7	30.9	21.0	-12.5	-36.8	-56.6	-64.7	-63.9	-64.1	VTHETA PR3
	U 2	219.58	222.19	224.59	236.03	250.73	263.86	273.34	276.40	279.66	U 2
	U 3	219.87	222.79	225.70	234.43	246.07	257.70	266.43	269.34	272.26	U 3
	M 2	0.5654	0.5609	0.5611	0.5696	0.5744	0.5668	0.5466	0.5403	0.5324	M 2
	M 3	0.8517	0.8368	0.8289	0.8333	0.7992	0.7620	0.7287	0.7164	0.7065	M 3
	M(PR) 2	0.6007	0.6049	0.6134	0.6366	0.6687	0.6926	0.7054	0.7067	0.7131	M(PR) 2
	M(PR) 3	0.4064	0.4108	0.4242	0.5256	0.5283	0.5175	0.4783	0.4498	0.4296	M(PR) 3
	TURN(PR)	63.126	59.094	55.313	43.908	37.691	32.901	30.512	30.143	29.434	TURN(PR)
	UUBAR	0.3569	0.3179	0.2691	0.0348	0.0175	0.0410	0.1099	0.1514	0.1790	UUBAR
	LOSS PARA	0.1097	0.1014	0.0883	0.0120	0.0063	0.0150	0.0466	0.0561	0.0663	LOSS PARA
	DFAC	0.7517	0.7423	0.7235	0.5856	0.5886	0.6094	0.6869	0.7079	0.7371	DFAC
	EFFP	0.7643	0.7828	0.8137	0.9711	0.9840	0.9643	0.9106	0.8836	0.8578	EFFP
	EFF	0.7495	0.7690	0.8016	0.9691	0.9829	0.9619	0.9046	0.8759	0.8484	EFF
	INCID	-9.821	-7.874	-6.945	-5.930	-5.067	-4.091	-3.240	-2.526	-4.022	INCID
	DEVM	10.603	13.532	11.742	11.963	9.497	8.958	11.618	13.130	15.960	DEVM
	P 2	10.061	10.082	10.096	10.139	10.167	10.139	10.061	10.026	9.994	P 2
	P 3	15.551	15.658	15.813	16.526	16.415	16.167	15.866	15.765	15.714	P 3
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	T 3	339.111	338.389	337.333	332.722	331.167	330.889	332.444	333.722	335.055	T 3
STATOR F	PCT SPAN	95.81	92.01	88.21	69.41	49.21	29.51	14.11	9.31	4.51	PCT SPAN
	DIA	0.423	0.427	0.432	0.448	0.468	0.487	0.502	0.508	0.511	DIA
STATOR-L.E.	BETA 3	63.588	60.642	57.798	48.577	47.361	47.826	50.865	53.133	54.850	BETA 3
STATOR-T.E.	BETA 4	9.934	10.246	10.613	11.306	11.372	11.067	10.748	10.663	10.597	BETA 4
	V 3	292.11	291.18	291.72	296.23	284.59	272.04	261.32	258.20	255.16	V 3
	V 4	175.01	178.72	185.84	206.04	205.17	197.70	193.08	193.36	193.57	V 4
	VZ 3	129.94	142.76	155.45	195.93	192.81	182.73	164.56	154.56	146.56	VZ 3
	VZ 4	172.36	179.65	182.82	202.53	200.91	193.56	188.88	189.05	188.83	VZ 4
	V-THETA 3	261.62	253.78	246.83	222.06	209.17	201.71	202.24	206.19	208.14	V-THETA 3
	V-THETA 4	30.19	31.79	34.22	40.49	40.41	37.80	35.85	35.59	35.33	V-THETA 4
	M 3	0.8460	0.8440	0.8473	0.8692	0.8324	0.7933	0.7596	0.7480	0.7316	M 3
	M 4	0.4851	0.4964	0.5181	0.5841	0.5811	0.5588	0.5436	0.5434	0.5421	M 4
	TURN(PR)	53.653	50.394	47.181	37.258	35.548	36.677	40.603	42.390	44.129	TURN(PR)
	UUBAR	0.0584	0.0556	0.0476	0.0484	0.0590	0.0889	0.0961	0.0749	0.0691	UUBAR
	LOSS PARA	0.0184	0.0177	0.0154	0.0162	0.0208	0.0329	0.0340	0.0306	0.0271	LOSS PARA
	DFAC	0.6546	0.6338	0.6033	0.5135	0.4950	0.5047	0.5140	0.5162	0.5172	DFAC
	EFFP	0.9282	0.9295	0.9370	0.9273	0.9034	0.8489	0.8372	0.8521	0.8659	EFFP
	INCID	-1.413	1.240	1.991	-3.742	-5.294	-6.833	-6.794	-6.742	-5.541	INCID
	DEVM	15.184	16.245	16.411	16.050	15.458	15.490	14.702	13.408	12.830	DEVM
	P 3	15.551	15.658	15.813	16.526	16.415	16.167	15.866	15.765	15.714	P 3
	P 4	15.212	15.332	15.530	16.210	16.061	15.679	15.417	15.403	15.386	P 4
	T 3	339.111	338.389	337.333	332.722	331.167	330.889	332.444	333.722	335.055	T 3
	T 4	339.111	338.389	337.333	332.722	331.167	330.889	332.444	333.722	335.055	T 4

ORIGINAL PAGE IS OF POOR QUALITY

Table B-3. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 98.91 Equivalent Rotor Speed = 9827.78 Equivalent Weight Flow = 16.754 kg/sec
Uniform Inlet
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	95.79	91.71	86.69	70.41	49.21	29.10	13.80	9.00	4.78	PCT SPAN
	DIA	0.425	0.432	0.439	0.464	0.495	0.526	0.549	0.556	0.562	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	12.591	12.211	11.912	12.062	12.845	13.355	13.522	13.948	14.978	BETA 2
	V 1	121.23	120.77	120.67	121.54	121.61	116.17	107.39	104.07	101.32	V 1
	V 2	135.36	136.09	137.72	139.02	138.83	135.72	131.12	129.13	127.19	V 2
	VZ 1	121.23	120.76	120.86	121.49	121.68	115.96	107.13	103.79	101.03	VZ 1
	VZ 2	132.12	133.58	134.72	135.81	134.98	131.36	126.53	124.28	121.75	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	29.51	28.91	28.42	29.07	30.78	31.19	30.43	30.87	32.57	V-THETA 2
	M 1	0.3609	0.3594	0.3597	0.3618	0.3620	0.3454	0.3188	0.3087	0.3006	M 1
	M 2	0.4043	0.4083	0.4115	0.4155	0.4149	0.4053	0.3912	0.3850	0.3791	M 2
	TURN	-12.59	-12.21	-11.91	-12.05	-12.81	-13.28	-13.42	-13.83	-14.84	TURN
	UUBAR	0.0488	0.0409	0.0245	0.0121	0.0200	0.0088	-0.0103	-0.0110	0.0	UUBAR
	DFAC	-0.019	-0.035	-0.044	-0.040	-0.034	-0.054	-0.098	-0.109	-0.109	DFAC
	EFFP	0.8430	0.8793	0.9282	0.9603	0.9409	0.9776	1.0204	1.0198	1.0000	EFFP
	INCID	5.9000	5.9200	5.9700	6.2500	6.6600	7.0000	7.3200	7.4200	7.4200	INCID
	DEVM	4.409	5.090	5.771	6.750	7.431	6.326	4.282	4.220	8.441	DEVM
	P 1	10.168	10.122	10.129	10.161	10.196	10.150	10.058	10.023	9.995	P 1
	P 2	10.065	10.087	10.108	10.150	10.178	10.143	10.065	10.030	9.995	P 2
	T 1	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 1
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	UUBAR FS										UUBAR FS
	P1 FS										P1 FS
	LOSS PARA FS										LOSS PARA FS
ROTOR F	PCT SPAN	95.01	89.99	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA	0.425	0.430	0.436	0.453	0.475	0.498	0.515	0.520	0.526	DIA
ROTOR -L.E.	BETA 2	9.638	9.524	9.339	9.495	10.043	10.448	10.630	10.981	11.778	BETA 2
ROTOR -T.E.	BETA 3	63.066	61.396	59.434	50.979	49.222	50.103	53.766	55.514	57.623	BETA 3
	BETA(PR) 2	47.266	47.902	48.346	49.297	50.769	52.834	54.938	55.676	56.322	BETA(PR) 2
	BETA(PR) 3	-17.425	-12.781	-8.542	-4.308	12.024	18.019	21.791	23.159	24.786	BETA(PR) 3
	V 2	176.80	175.70	176.35	178.98	180.92	178.13	172.43	169.81	167.28	V 2
	V 3	292.13	288.22	285.98	282.75	273.07	262.87	254.40	251.51	248.34	V 3
	VZ 2	174.30	173.28	174.01	176.43	177.78	174.44	168.46	165.64	162.64	VZ 2
	VZ 3	132.15	137.81	145.39	177.97	178.22	168.37	150.10	142.14	132.73	VZ 3
	V-THETA 2	29.60	29.07	28.62	29.51	31.49	32.17	31.62	32.14	33.91	V-THETA 2
	V-THETA 3	266.03	252.71	240.16	219.61	206.63	201.36	204.63	206.92	209.33	V-THETA 3
	V(PR) 2	256.9	258.5	261.8	270.6	281.3	289.2	293.9	294.4	293.4	V(PR) 2
	V(PR) 3	139.5	142.1	147.2	178.6	182.5	177.6	162.4	155.4	147.0	V(PR) 3
	VTHETA PR2	-188.7	-191.8	-195.6	-205.1	-217.7	-230.1	-240.1	-242.6	-244.1	VTHETA PR2
	VTHETA PR3	41.5	31.3	21.8	-13.4	-38.0	-54.8	-60.0	-60.8	-61.3	VTHETA PR3
	U 2	218.26	220.85	224.24	234.61	249.23	262.27	271.69	274.74	277.98	U 2
	U 3	218.55	221.45	224.34	233.02	244.59	256.15	264.63	267.72	270.62	U 3
	M 2	0.5342	0.5306	0.5327	0.5411	0.5474	0.5384	0.5203	0.5119	0.5039	M 2
	M 3	0.8470	0.8349	0.8269	0.8248	0.7969	0.7613	0.7312	0.7210	0.7102	M 3
	M(PR) 2	0.7760	0.7806	0.7909	0.8182	0.8512	0.8742	0.8867	0.8874	0.8855	M(PR) 2
	M(PR) 3	0.4043	0.4116	0.4266	0.5210	0.5313	0.5144	0.4667	0.4454	0.4204	M(PR) 3
	TURN(PR)	64.566	60.613	56.878	44.977	38.705	34.754	33.087	32.463	31.491	TURN(PR)
	UUBAR	0.3759	0.3309	0.2779	0.0633	0.0284	0.0577	0.1355	0.1605	0.1810	UUBAR
	LOSS PARA	0.1155	0.1054	0.0911	0.0219	0.0102	0.0212	0.0505	0.0600	0.0676	LOSS PARA
	DFAC	0.7462	0.7335	0.7135	0.5824	0.5767	0.6085	0.6800	0.7092	0.7408	DFAC
	EFFP	0.7623	0.7835	0.8168	0.9539	0.9746	0.9535	0.8916	0.8744	0.8580	EFFP
	EFF	0.7475	0.7698	0.8049	0.9507	0.9729	0.9503	0.8844	0.8661	0.8486	EFF
	INCID	-6.384	-6.498	-5.655	-4.538	-3.741	-2.735	-1.895	-2.050	-2.868	INCID
	DEVM	16.598	13.368	11.467	12.305	9.804	8.460	10.388	12.137	15.041	DEVM
	P 2	10.065	10.087	10.108	10.150	10.178	10.143	10.065	10.030	9.995	P 2
	P 3	15.466	15.607	15.798	16.321	16.293	16.116	15.876	15.798	15.709	P 3
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	T 3	338.500	337.889	336.889	332.222	330.778	331.055	333.472	334.278	335.000	T 3
STATOR F	PCT SPAN	95.81	92.01	86.21	69.91	49.21	29.51	14.11	9.31	4.51	PCT SPAN
	DIA	0.423	0.427	0.432	0.448	0.468	0.487	0.502	0.506	0.511	DIA
STATOR-L.E.	BETA 3	63.589	60.542	57.647	48.668	46.960	47.937	51.604	53.328	55.401	BETA 3
STATOR-T.E.	BETA 4	9.730	9.991	10.359	11.043	11.349	11.011	11.007	10.992	10.978	BETA 4
	V 3	290.40	290.38	291.55	292.73	282.83	272.48	262.61	259.34	255.71	V 3
	V 4	166.17	170.60	178.24	195.38	195.32	189.10	187.01	186.11	186.71	V 4
	VZ 3	129.17	142.80	156.01	193.27	192.86	182.23	162.75	154.54	144.87	VZ 3
	VZ 4	163.77	168.00	175.30	191.67	191.28	185.17	182.79	181.76	182.15	VZ 4
	V-THETA 3	260.09	252.83	246.28	219.75	206.53	201.94	205.36	207.54	210.00	V-THETA 3
	V-THETA 4	28.08	29.59	32.04	37.41	38.39	36.03	35.55	35.30	35.33	V-THETA 4
	M 3	0.8412	0.8421	0.8474	0.8581	0.8271	0.7926	0.7574	0.7459	0.7335	M 3
	M 4	0.4600	0.4732	0.4962	0.5507	0.5518	0.5330	0.5247	0.5214	0.5226	M 4
	TURN(PR)	53.860	50.550	47.284	37.612	35.569	36.843	40.486	42.219	44.303	TURN(PR)
	UUBAR	0.0468	0.0476	0.0442	0.0408	0.0540	0.0841	0.0774	0.0739	0.0546	UUBAR
	LOSS PARA	0.0148	0.0151	0.0143	0.0137	0.0190	0.0311	0.0297	0.0286	0.0214	LOSS PARA
	DFAC	0.6637	0.6621	0.6309	0.5470	0.5258	0.5388	0.5446	0.5490	0.5470	DFAC
	EFFP	0.9450	0.9427	0.9446	0.9428	0.9185	0.8690	0.8712	0.8746	0.9035	EFFP
	INCID	-1.411	1.140	1.841	-3.651	-5.696	-6.722	-6.055	-5.546	-4.989	INCID
	DEVM	14.979	15.990	16.157	15.788	15.435	14.984	14.960	14.135	13.208	DEVM
	P 3	15.466	15.607	15.798	16.321	16.293	16.116	15.876	15.798	15.709	P 3
	P 4	15.197	15.331	15.536	16.066	15.975	15.656	15.487	15.437	15.451	P 4
	T 3	338.500	337.889	336.889	332.222	330.778	331.055	333.472	334.278	335.000	T 3
	T 4	338.500	337.889	336.889	332.222	330.778	331.055	333.472	334.278	335.000	T 4

Table B-3. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 98.93 Equivalent Rotor Speed = 9829.58 Equivalent Weight Flow = 16.221 kg/sec
Uniform Inlet
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	95.79	91.71	86.69	70.41	49.21	29.10	13.80	9.00	4.70	PCT SPAN
	DIA	0.425	0.432	0.439	0.464	0.495	0.526	0.549	0.556	0.562	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	12.678	12.330	12.052	11.900	12.928	13.133	13.691	14.227	14.952	BETA 2
	V 1	113.70	113.50	114.29	115.40	115.38	110.75	103.60	100.62	98.20	V 1
	V 2	128.99	130.05	130.77	132.29	132.27	129.59	124.85	123.19	121.28	V 2
	VZ 1	113.70	113.50	114.28	115.35	115.26	110.55	103.34	100.35	97.91	VZ 1
	VZ 2	125.85	127.04	127.86	129.32	128.56	125.54	120.39	118.42	116.11	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	28.31	27.77	27.30	27.25	29.51	29.29	29.33	30.03	31.01	V-THETA 2
	M 1	0.3379	0.3373	0.3397	0.3431	0.3430	0.3290	0.3073	0.2983	0.2910	M 1
	M 2	0.3846	0.3879	0.3901	0.3948	0.3947	0.3865	0.3719	0.3669	0.3610	M 2
	TURN	-12.68	-12.33	-12.05	-11.49	-12.89	-13.06	-13.59	-14.11	-14.81	TURN
	UUBAR	0.0461	0.0462	0.0455	0.0267	0.0178	0.0048	0.0111	0.0059	0.0186	UUBAR
	DFAC	-0.034	-0.047	-0.047	-0.050	-0.040	-0.057	-0.082	-0.091	-0.092	DFAC
	EFFP	0.8676	0.8770	0.8774	0.9255	0.9490	0.9877	0.9771	0.9888	0.9671	EFFP
	INCID	5.9000	5.9200	5.9700	6.2500	6.6000	7.0000	7.3200	7.4200	7.4200	INCID
	DEVM	4.322	4.971	5.631	6.912	7.549	8.547	9.114	8.944	8.467	DEVM
	P 1	10.108	10.122	10.136	10.164	10.186	10.147	10.072	10.040	10.016	P 1
	P 2	10.072	10.086	10.101	10.143	10.171	10.143	10.065	10.037	10.005	P 2
	T 1	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 1
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	UUBAR FS										UUBAR FS
	P1 FS										P1 FS
	LOSS PARA FS										LOSS PARA FS
ROTOR F	PCT SPAN	95.01	89.99	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA	0.425	0.436	0.446	0.473	0.498	0.515	0.529	0.526	0.526	DIA
ROTOR -L.E.	BETA 2	9.778	9.587	9.521	9.441	10.189	10.353	10.842	11.275	11.834	BETA 2
ROTOR -T.E.	BETA 3	66.167	64.230	61.881	52.817	51.298	52.290	55.796	58.369	60.319	BETA 3
	BETA(PR) 2	49.055	49.709	50.208	51.157	52.524	54.531	56.588	57.222	57.915	BETA(PR) 2
	BETA(PR) 3	-20.909	-15.518	-10.028	3.723	11.968	18.897	22.847	23.705	25.006	BETA(PR) 3
	V 2	167.14	165.96	166.26	169.02	171.01	168.81	163.60	160.92	158.50	V 2
	V 3	287.04	284.35	282.63	278.84	268.14	256.41	249.39	247.95	246.53	V 3
	VZ 2	164.77	163.59	163.91	166.64	167.96	165.37	159.16	156.81	154.67	VZ 2
	VZ 3	116.16	123.49	133.27	168.48	167.54	156.63	139.96	129.82	121.87	VZ 3
	V-THETA 2	28.39	27.92	27.49	27.71	30.19	30.21	30.48	31.26	32.28	V-THETA 2
	V-THETA 3	262.97	255.78	249.39	222.10	209.12	202.58	205.91	210.77	213.85	V-THETA 3
	V(PR) 2	251.4	253.0	256.1	265.8	276.3	285.4	284.6	290.2	290.6	V(PR) 2
	V(PR) 3	125.2	128.8	135.7	168.9	171.6	166.1	152.6	142.5	135.2	V(PR) 3
	VTHETA PR2	-189.9	-193.0	-196.8	-206.9	-219.1	-232.1	-241.3	-243.5	-245.7	VTHETA PR2
	VTHETA PR3	44.4	34.3	25.0	-11.0	-35.5	-53.6	-59.0	-97.0	-96.8	VTHETA PR3
	U 2	218.30	220.89	224.28	234.66	249.27	262.32	271.74	274.79	278.03	U 2
	U 3	218.59	221.49	224.38	233.06	244.63	256.20	264.88	267.77	270.67	U 3
	M 2	0.5036	0.4997	0.5005	0.5094	0.5157	0.5088	0.4904	0.4838	0.4702	M 2
	M 3	0.8315	0.8208	0.8173	0.8105	0.7776	0.7394	0.7146	0.7085	0.7027	M 3
	M(PR) 2	0.7573	0.7618	0.7712	0.8010	0.8332	0.8601	0.8711	0.8726	0.8732	M(PR) 2
	M(PR) 3	0.3616	0.3719	0.3922	0.4911	0.4975	0.4789	0.4371	0.4072	0.3854	M(PR) 3
	TURN(PR)	69.820	65.144	60.824	47.422	40.517	35.578	33.688	33.468	32.870	TURN(PR)
	UUBAR	0.3974	0.3484	0.2907	0.0800	0.0484	0.0853	0.1421	0.1746	0.1921	UUBAR
	LOSS PARA	0.1196	0.1047	0.0948	0.0277	0.0174	0.0312	0.0526	0.0651	0.0716	LOSS PARA
	DFAC	0.8029	0.7855	0.7574	0.6167	0.6137	0.6480	0.7123	0.7566	0.7870	DFAC
	EFFP	0.7613	0.7841	0.8194	0.9447	0.9617	0.9316	0.8907	0.8732	0.8590	EFFP
	EFF	0.7462	0.7702	0.8075	0.9408	0.9599	0.9270	0.8834	0.8646	0.8495	EFF
	INCID	-6.595	-4.691	-3.793	-2.678	-1.985	-1.036	-0.242	-0.501	-1.271	INCID
	DEVM	13.135	10.669	9.383	11.721	9.747	9.336	11.440	12.681	15.259	DEVM
	P 2	10.072	10.086	10.101	10.143	10.171	10.143	10.065	10.037	10.005	P 2
	P 3	15.583	15.732	15.937	16.398	16.327	16.086	15.955	15.951	15.951	P 3
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	T 3	339.444	338.833	337.833	333.222	331.667	331.944	334.055	335.333	336.528	T 3
STATOR F	PCT SPAN	95.81	92.01	86.21	69.91	49.21	29.51	14.11	9.31	4.51	PCT SPAN
	DIA	0.423	0.427	0.432	0.448	0.468	0.487	0.502	0.506	0.511	DIA
STATOR-L.E.	BETA 3	66.716	63.355	60.671	50.581	49.655	50.160	53.607	56.049	57.974	BETA 3
STATOR-T.E.	BETA 4	10.768	10.938	11.121	11.692	11.246	11.372	11.205	11.212	11.261	BETA 4
	V 3	286.39	286.31	287.90	287.75	276.95	264.98	256.99	255.35	253.66	V 3
	V 4	159.60	164.57	172.71	190.04	187.73	185.58	181.68	182.37	183.56	V 4
	VZ 3	113.19	128.40	143.63	182.67	181.34	169.49	152.17	142.33	134.44	VZ 3
	VZ 4	156.79	161.56	169.43	186.00	183.91	181.90	177.47	177.98	178.90	VZ 4
	V-THETA 3	203.63	255.90	249.49	222.23	209.02	203.14	206.45	211.40	214.51	V-THETA 3
	V-THETA 4	29.62	31.22	35.31	38.49	36.57	36.50	35.16	35.28	35.62	V-THETA 4
	M 3	0.8266	0.8273	0.8339	0.8400	0.8064	0.7670	0.7387	0.7319	0.7252	M 3
	M 4	0.4404	0.4551	0.4794	0.5339	0.5284	0.5218	0.5085	0.5095	0.5121	M 4
	TURN(PR)	55.949	52.416	48.945	38.677	37.788	38.708	42.295	44.726	46.552	TURN(PR)
	UUBAR	0.0528	0.0535	0.0510	0.0397	0.0586	0.0505	0.0723	0.0726	0.0677	UUBAR
	LOSS PARA	0.0166	0.0170	0.0164	0.0133	0.0207	0.0187	0.0277	0.0281	0.0265	LOSS PARA
	DFAC	0.7035	0.6800	0.6477	0.5594	0.5487	0.5401	0.5576	0.5628	0.5625	DFAC
	EFFP	0.9388	0.9363	0.9369	0.9440	0.9134	0.9194	0.8806	0.8772	0.8820	EFFP
	INCID	1.716	3.452	4.264	-1.737	-3.569	-4.498	-4.048	-2.820	-2.459	INCID
	DEVM	16.017	16.936	16.919	16.436	15.333	15.344	15.157	14.394	13.490	DEVM
	P 3	15.583	15.732	15.937	16.398	16.327	16.086	15.955	15.951	15.951	P 3
	P 4	15.286	15.427	15.640	16.157	15.994	15.824	15.604	15.604	15.633	P 4
	T 3	339.444	338.833	337.833	333.222	331.667	331.944	334.055	335.333	336.528	T 3
	T 4	339.444	338.833	337.833	333.222	331.667	331.944	334.055	335.333	336.528	T 4

ORIGINAL PAGE IS
OF POOR QUALITY

Table B-3. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 99.02 Equivalent Rotor Speed = 9838.76 Equivalent Weight Flow = 15.702 kg/sec
Uniform Inlet
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	95.79	91.71	86.89	78.41	49.21	29.16	13.80	9.00	4.78	PCT SPAN
	DIA	0.425	0.432	0.439	0.464	0.495	0.526	0.549	0.556	0.562	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	12.214	11.988	11.808	11.967	12.950	13.319	13.628	13.935	14.333	BETA 2
	V 1	113.44	112.67	113.46	114.47	114.80	110.83	103.85	101.11	98.43	V 1
	V 2	126.50	127.74	128.51	129.91	129.51	127.21	122.43	120.70	118.60	V 2
	VZ 1	113.44	112.66	113.45	114.43	114.68	110.62	103.59	100.83	98.14	VZ 1
	VZ 2	123.63	124.95	125.77	126.96	125.87	123.14	118.08	116.17	113.80	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	26.76	26.53	26.29	26.91	28.94	29.15	28.63	28.32	30.14	V-THETA 2
	M 1	0.3371	0.3348	0.3372	0.3403	0.3413	0.3292	0.3081	0.2998	0.2917	M 1
	M 2	0.3770	0.3806	0.3832	0.3874	0.3862	0.3792	0.3645	0.3592	0.3534	M 2
	TURN	-12.21	-11.99	-11.81	-11.96	-12.91	-13.25	-13.52	-13.82	-14.09	TURN
	UUBAR	0.0415	0.0280	0.0276	0.0093	0.0269	0.0192	0.0330	0.0348	0.0430	UUBAR
	DFAC	-0.020	-0.039	-0.039	-0.039	-0.023	-0.036	-0.059	-0.067	-0.066	DFAC
	EFFP	0.8606	0.9146	0.9151	0.9710	0.9146	0.9455	0.9251	0.9271	0.9171	EFFP
	INCID	5.9000	5.9200	5.9700	6.2500	6.6600	7.0000	7.3200	7.4200	7.4200	INCID
	DEVM	4.786	5.315	5.875	6.844	7.327	8.362	9.176	9.233	8.565	DEVM
	P 1	10.103	10.110	10.124	10.153	10.181	10.153	10.082	10.054	10.026	P 1
	P 2	10.072	10.089	10.103	10.146	10.160	10.139	10.061	10.033	10.001	P 2
	T 1	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 1
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	UUBAR FS										UUBAR FS
	PI FS										PI FS
	LOSS PARA FS										LOSS PARA FS
ROTOR F	PCT SPAN	95.81	89.99	83.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA	0.425	0.438	0.450	0.483	0.475	0.498	0.515	0.520	0.526	DIA
ROTOR -L.E.	BETA 2	9.448	9.442	9.350	9.518	10.238	10.526	10.819	11.073	11.770	BETA 2
ROTOR -T.E.	BETA 3	63.332	62.046	60.345	51.436	50.267	51.296	55.151	57.283	59.545	BETA 3
	BETA(PR) 2	49.910	50.471	50.921	51.814	53.296	55.100	57.271	57.959	58.625	BETA(PR) 2
	BETA(PR) 3	-17.845	-13.436	-9.056	4.425	12.619	18.688	22.296	23.530	24.963	BETA(PR) 3
	V 2	163.52	162.64	162.97	165.58	166.93	165.29	159.44	157.27	154.36	V 2
	V 3	292.51	287.78	284.31	281.06	268.64	258.89	251.75	249.36	247.17	V 3
	VZ 2	161.30	160.43	160.80	163.21	163.93	161.83	155.09	153.36	150.57	VZ 2
	VZ 3	131.09	134.73	140.64	175.18	171.59	161.66	143.61	134.54	125.67	VZ 3
	V-THETA 2	26.84	26.68	26.48	27.36	29.61	30.07	29.75	30.01	31.37	V-THETA 2
	V-THETA 3	261.00	253.86	247.01	219.72	206.44	201.76	206.24	209.44	212.70	V-THETA 3
	V(PR) 2	250.5	252.1	255.1	264.1	274.5	283.7	288.5	289.6	289.8	V(PR) 2
	V(PR) 3	136.7	139.3	142.6	175.8	176.1	171.2	155.9	147.5	139.7	V(PR) 3
	VTHETA PR2	-191.7	-194.4	-198.0	-207.5	-219.9	-232.5	-242.2	-245.6	-246.9	VTHETA PR2
	VTHETA PR3	42.2	32.2	22.9	-13.6	-38.4	-54.7	-58.9	-58.6	-56.2	VTHETA PR3
	U 2	218.51	221.10	224.49	234.88	249.50	262.56	272.00	275.05	278.29	U 2
	U 3	218.79	221.70	224.59	233.28	244.86	256.44	265.13	268.02	270.92	U 3
	M 2	0.4920	0.4892	0.4903	0.4985	0.5028	0.4976	0.4792	0.4723	0.4646	M 2
	M 3	0.8469	0.8323	0.8224	0.8184	0.7799	0.7477	0.7217	0.7126	0.7047	M 3
	M(PR) 2	0.7538	0.7582	0.7674	0.7950	0.8268	0.8540	0.8670	0.8698	0.8697	M(PR) 2
	M(PR) 3	0.4014	0.4028	0.4124	0.5119	0.5113	0.4944	0.4470	0.4216	0.3955	M(PR) 3
	TURN(PR)	67.636	63.833	59.966	47.378	40.659	36.417	34.922	34.382	33.626	TURN(PR)
	UUBAR	0.3755	0.3360	0.2884	0.0613	0.0467	0.0794	0.1518	0.1840	0.2064	UUBAR
	LOSS PARA	0.1151	0.1068	0.0944	0.0212	0.0167	0.0291	0.0564	0.0685	0.0769	LOSS PARA
	DFAC	0.7478	0.7425	0.7279	0.5856	0.5917	0.6269	0.7011	0.7302	0.7740	DFAC
	EFFP	0.7759	0.7933	0.8209	0.9558	0.9637	0.9388	0.8854	0.8651	0.8410	EFFP
	EFF	0.7614	0.7798	0.8090	0.9527	0.9613	0.9347	0.8777	0.8561	0.8378	EFF
	INCID	-5.734	-3.929	-3.081	-2.021	-1.213	-0.406	0.442	0.236	-0.556	INCID
	DEVM	16.180	12.736	10.953	12.422	10.396	9.127	10.691	12.506	15.217	DEVM
	P 2	10.072	10.089	10.103	10.146	10.160	10.139	10.061	10.033	10.001	P 2
	P 3	15.712	15.804	15.924	16.439	16.241	16.100	15.945	15.892	15.853	P 3
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	T 3	339.444	338.722	337.611	332.889	331.167	331.722	334.333	335.444	336.555	T 3
STATOR F	PCT SPAN	95.81	92.01	86.21	69.91	49.21	29.51	14.11	9.31	4.51	PCT SPAN
	DIA	0.423	0.427	0.432	0.448	0.468	0.487	0.502	0.506	0.511	DIA
STATOR-L.E.	BETA 3	63.670	61.186	58.592	49.182	48.080	49.166	52.457	55.020	57.204	BETA 3
STATOR-T.E.	BETA 4	9.363	9.705	10.215	11.671	11.595	11.047	10.278	9.972	9.753	BETA 4
	V 3	290.78	289.90	289.55	290.60	277.55	267.83	259.60	256.91	254.36	V 3
	V 4	157.79	161.74	167.49	185.34	183.31	181.08	180.11	180.21	180.10	V 4
	VZ 3	128.06	134.72	150.88	189.90	185.27	174.83	156.06	146.98	137.50	VZ 3
	VZ 4	155.68	159.41	164.80	181.41	179.36	177.30	176.47	176.57	176.38	VZ 4
	V-THETA 3	261.06	254.00	247.11	219.76	206.34	202.32	206.78	210.06	213.38	V-THETA 3
	V-THETA 4	25.67	27.26	29.70	37.47	36.80	34.61	32.00	31.04	30.32	V-THETA 4
	M 3	0.6412	0.8393	0.8397	0.8500	0.8091	0.7765	0.7467	0.7367	0.7274	M 3
	M 4	0.4352	0.4471	0.4644	0.5203	0.5157	0.5086	0.5037	0.5031	0.5019	M 4
	TURN(PR)	54.307	51.480	48.372	37.499	36.443	38.039	42.567	44.930	47.326	TURN(PR)
	UUBAR	0.0836	0.0757	0.0755	0.0712	0.0670	0.0760	0.0751	0.0696	0.0660	UUBAR
	LOSS PARA	0.0264	0.0254	0.0244	0.0239	0.0236	0.0261	0.0284	0.0271	0.0255	LOSS PARA
	DFAC	0.7166	0.6960	0.6691	0.5783	0.5618	0.5633	0.5734	0.5781	0.5837	DFAC
	EFFP	0.9055	0.9077	0.9096	0.9055	0.9046	0.8860	0.8806	0.8866	0.8901	EFFP
	INCID	-1.130	1.783	2.785	-3.136	-4.575	-5.490	-4.699	-3.851	-3.181	INCID
	DEVM	14.613	15.703	16.013	16.415	15.681	15.020	14.233	13.120	11.991	DEVM
	P 3	15.712	15.804	15.924	16.439	16.241	16.100	15.945	15.892	15.853	P 3
	P 4	15.225	15.338	15.479	15.998	15.860	15.698	15.575	15.557	15.543	P 4
	T 3	339.444	338.722	337.611	332.889	331.167	331.722	334.333	335.444	336.555	T 3
	T 4	339.444	338.722	337.611	332.889	331.167	331.722	334.333	335.444	336.555	T 4

Table B-3. Blade Element Performance (Continued)
Stage F, Rotor F – Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 93.65 Equivalent Rotor Speed = 9304.57 Equivalent Weight Flow = 17.747 kg/sec
Uniform Inlet
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	95.79	91.71	86.89	70.41	49.21	29.10	13.80	9.00	4.70	PCT SPAN
	DIA	0.425	0.432	0.439	0.464	0.495	0.526	0.549	0.556	0.562	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	12.726	12.421	12.163	12.215	13.308	13.455	13.827	14.148	14.518	BETA 2
	V 1	128.52	128.43	129.75	130.43	130.52	127.45	119.83	115.70	112.72	V 1
	V 2	146.98	148.84	149.88	150.29	149.33	146.71	142.00	139.78	137.76	V 2
	VZ 1	128.52	128.43	129.74	130.38	130.38	127.21	119.53	115.58	112.58	VZ 1
	VZ 2	143.37	145.34	146.48	146.74	144.91	141.94	136.85	134.38	132.14	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	32.38	32.01	31.67	31.77	34.28	33.96	33.68	34.00	34.22	V-THETA 2
	M 1	0.3832	0.3829	0.3870	0.3900	0.3898	0.3799	0.3566	0.3440	0.3344	M 1
	M 2	0.4402	0.4460	0.4492	0.4505	0.4475	0.4394	0.4247	0.4179	0.4116	M 2
	TURN	-12.73	-12.42	-12.16	-12.20	-13.27	-13.38	-13.72	-14.06	-14.38	TURN
	UUBAR	0.0476	0.0329	0.0322	0.0283	0.0317	0.0366	0.0335	0.0226	0.0216	UUBAR
	DFAC	-0.042	-0.058	-0.056	-0.053	-0.034	-0.037	-0.063	-0.077	-0.084	DFAC
	EFFP	0.8736	0.9177	0.9175	0.9285	0.9128	0.9040	0.8975	0.9556	0.9480	EFFP
	INCID	5.9000	5.9200	5.9700	6.2500	6.6600	7.0000	7.4200	7.4200	7.4200	INCID
	DEVM	4.274	4.880	5.520	6.597	6.970	8.227	8.979	8.972	8.848	DEVM
	P 1	10.082	10.103	10.128	10.156	10.185	10.171	10.082	10.028	9.993	P 1
	P 2	10.035	10.071	10.096	10.128	10.153	10.135	10.053	10.011	9.971	P 2
	T 1	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 1
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	UUBAR FS										UUBAR FS
	P1 FS										P1 FS
	LOSS PARA FS										LOSS PARA FS
ROTOR F	PCT SPAN	95.01	89.99	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA	0.425	0.430	0.436	0.453	0.475	0.498	0.515	0.520	0.526	DIA
ROTOR -L.E.	BETA 2	9.575	9.526	9.379	9.462	10.238	10.351	10.704	11.015	11.260	BETA 2
ROTOR -T.E.	BETA 3	70.064	63.128	59.137	48.438	47.217	47.417	49.212	50.288	51.442	BETA 3
	BETA(PR) 2	42.136	42.683	43.161	44.405	45.478	48.040	50.194	51.016	51.823	BETA(PR) 2
	BETA(PR) 3	-25.242	-14.415	-9.267	5.372	12.958	18.731	22.065	23.379	24.199	BETA(PR) 3
	V 2	195.24	194.50	195.10	196.58	197.70	195.76	189.46	184.46	183.70	V 2
	V 3	265.74	270.55	274.24	272.24	260.33	251.53	245.60	243.03	238.40	V 3
	VZ 2	192.52	191.82	192.48	193.51	194.15	191.77	185.19	181.66	178.43	VZ 2
	VZ 3	90.53	122.15	140.64	180.56	176.68	169.95	160.28	154.40	148.52	VZ 3
	V-THETA 2	32.47	32.19	31.79	32.30	35.07	34.03	35.00	35.40	35.62	V-THETA 2
	V-THETA 3	249.60	241.06	235.34	203.63	190.91	184.19	185.77	186.50	186.33	V-THETA 3
	V(PR) 2	259.6	260.9	263.4	271.4	279.7	287.4	290.0	289.8	290.3	V(PR) 2
	V(PR) 3	100.7	126.8	142.6	181.5	181.6	180.0	177.7	169.6	161.0	V(PR) 3
	VTHETA PR2	-174.2	-176.9	-180.5	-189.8	-200.4	-213.3	-222.2	-224.7	-227.6	VTHETA PR2
	VTHETA PR3	42.7	31.4	22.9	-17.0	-40.7	-57.6	-65.0	-67.0	-69.9	VTHETA PR3
	U 2	206.64	209.09	212.30	222.12	235.96	248.31	257.23	260.11	263.18	U 2
	U 3	206.91	209.66	212.40	220.61	231.56	242.52	250.73	253.47	256.21	U 3
	M 2	0.5936	0.5912	0.5931	0.5980	0.6016	0.5953	0.5752	0.5653	0.5563	M 2
	M 3	0.7685	0.7847	0.7981	0.7987	0.7620	0.7333	0.7137	0.7039	0.6904	M 3
	M(PR) 2	0.7893	0.7932	0.8023	0.8254	0.8511	0.8739	0.8796	0.8785	0.8740	M(PR) 2
	M(PR) 3	0.2913	0.3678	0.4151	0.5324	0.5315	0.5248	0.5042	0.4913	0.4778	M(PR) 3
	TURN(PR)	67.211	57.020	52.418	39.021	32.981	26.247	25.062	27.575	26.570	TURN(PR)
	UUBAR	0.5790	0.4743	0.3802	0.1446	0.1238	0.1340	0.1588	0.1734	0.1914	UUBAR
	LOSS PARA	0.1687	0.1501	0.1244	0.0496	0.0443	0.0491	0.0591	0.0647	0.0715	LOSS PARA
	DFAC	0.8817	0.7761	0.7153	0.5491	0.5523	0.5716	0.6058	0.6227	0.6407	DFAC
	EFFP	0.5736	0.6375	0.7098	0.8617	0.8748	0.8631	0.8466	0.8329	0.8160	EFFP
	EFF	0.5560	0.6210	0.6953	0.8615	0.8692	0.8565	0.8386	0.8253	0.8066	EFF
	INCID	-13.514	-11.717	-10.640	-9.431	-8.534	-7.532	-6.647	-6.719	-7.377	INCID
	DEVM	8.625	11.763	10.742	13.369	10.726	9.170	10.660	12.356	13.492	DEVM
	P 2	10.035	10.071	10.096	10.128	10.153	10.135	10.053	10.011	9.971	P 2
	P 3	13.369	13.833	14.274	14.737	14.566	14.481	14.424	14.349	14.225	P 3
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	T 3	332.667	332.222	331.278	326.000	324.222	324.278	325.500	326.000	326.333	T 3
STATOR F	PCT SPAN	95.81	92.01	86.21	69.91	49.21	29.51	14.11	9.71	4.51	PCT SPAN
	DIA	0.423	0.427	0.432	0.448	0.468	0.487	0.502	0.506	0.511	DIA
STATOR-L.E.	BETA 3	70.594	62.400	57.652	46.626	45.387	45.651	47.477	48.371	49.319	BETA 3
STATOR-T.E.	BETA 4	4.590	5.006	5.539	5.937	6.057	5.915	5.045	5.420	5.666	BETA 4
	V 3	264.69	272.15	278.71	280.40	268.31	256.75	253.37	250.18	245.57	V 3
	V 4	259.19	266.68	280.04	294.01	294.44	294.04	288.89	285.26	280.71	V 4
	VZ 3	87.95	126.08	149.12	192.41	188.26	181.24	170.81	165.08	158.14	VZ 3
	VZ 4	258.34	265.63	278.67	292.28	292.93	291.75	284.81	280.73	275.71	VZ 4
	V-THETA 3	249.66	241.17	235.44	203.76	190.82	185.40	186.25	187.06	186.92	V-THETA 3
	V-THETA 4	20.74	23.27	27.02	30.39	25.42	30.23	40.25	41.55	42.17	V-THETA 4
	M 3	0.7652	0.7899	0.8128	0.8219	0.7882	0.7600	0.7377	0.7269	0.7116	M 3
	M 4	0.7474	0.7722	0.8172	0.8719	0.8781	0.8746	0.8552	0.8422	0.8264	M 4
	TURN(PR)	66.004	57.392	52.107	40.674	40.281	39.641	39.305	40.015	40.429	TURN(PR)
	UUBAR	0.1364	0.1448	0.1160	0.0963	0.1060	0.1066	0.1592	0.1781	0.1902	UUBAR
	LOSS PARA	0.0435	0.0466	0.0379	0.0328	0.0390	0.0400	0.0618	0.0696	0.0744	LOSS PARA
	DFAC	0.2978	0.2800	0.2418	0.1643	0.1261	0.0963	0.0890	0.0936	0.0966	DFAC
	EFFP	-1.6633	-1.8894	10.4294	1.7400	1.4035	1.2981	1.4263	1.4807	1.5075	EFFP
	INCID	5.594	2.967	1.845	-5.693	-7.268	-9.009	-10.185	-10.310	-10.631	INCID
	DEVM	9.840	11.006	11.338	10.683	9.151	8.901	12.010	11.576	10.940	DEVM
	P 3	13.369	13.833	14.274	14.737	14.566	14.481	14.424	14.349	14.225	P 3
	P 4	12.802	13.158	13.691	14.225	14.047	13.990	13.727	13.592	13.449	P 4
	T 3	332.667	332.222	331.278	326.000	324.222	324.278	325.500	326.000	326.333	T 3
	T 4	332.667	332.222	331.278	326.000	324.222	324.278	325.500	326.000	326.333	T 4

Table B-3. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 93.51 Equivalent Rotor Speed = 9290.90 Equivalent Weight Flow = 17.002 kg/sec
Uniform Inlet
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	95.79	91.71	86.89	70.41	49.21	29.10	13.80	9.00	4.70	PCT SPAN
	DIA	0.425	0.432	0.439	0.464	0.495	0.526	0.549	0.556	0.562	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	12.872	12.385	12.043	12.074	13.162	13.371	14.010	14.280	14.777	BETA 2
	V 1	122.20	121.87	122.35	124.03	123.88	120.86	113.70	110.00	107.51	V 1
	V 2	137.74	136.90	141.20	142.25	141.93	139.12	134.91	132.63	130.88	V 2
	VZ 1	122.20	121.87	122.34	123.98	123.75	120.64	113.41	109.79	107.19	VZ 1
	VZ 2	134.27	136.64	138.06	138.96	137.81	134.64	129.91	127.41	125.39	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	30.68	30.00	29.45	29.72	32.23	32.00	32.41	32.67	33.08	V-THETA 2
	M 1	0.3638	0.3628	0.3643	0.3694	0.3690	0.3597	0.3379	0.3269	0.3191	M 1
	M 2	0.4116	0.4083	0.4223	0.4255	0.4245	0.4158	0.4028	0.3958	0.3904	M 2
	TURN	-12.87	-12.38	-12.04	-12.06	-13.13	-13.30	-13.90	-14.26	-14.64	TURN
	UUBAR	0.0603	0.0347	0.0160	0.0194	0.0155	0.0367	0.0324	0.0346	0.0415	UUBAR
	DFAC	-0.026	-0.049	-0.056	-0.049	-0.037	-0.038	-0.062	-0.073	-0.078	DFAC
	EFFP	0.8762	0.9068	0.9567	0.9454	0.9554	0.9039	0.9300	0.9321	0.9241	EFFP
	INCID	5.9000	5.9200	5.9700	6.2500	6.6600	7.0000	7.4200	7.4200	7.4200	INCID
	DEVM	4.128	4.916	5.640	6.738	7.115	8.210	8.798	8.792	8.640	DEVM
	P 1	10.083	10.100	10.112	10.154	10.179	10.168	10.090	10.048	10.019	P 1
	P 2	10.030	10.069	10.097	10.136	10.165	10.136	10.066	10.023	9.991	P 2
	T 1	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 1
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	UUBAR FS										UUBAR FS
	P1 FS										P1 FS
	LOSS PARA FS										LOSS PARA FS
ROTOR F	PCT SPAN	95.01	89.99	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA	0.425	0.430	0.436	0.453	0.475	0.498	0.515	0.520	0.526	DIA
ROTOR -L.E.	BETA 2	9.821	9.921	9.402	9.466	10.247	10.412	10.957	11.268	11.569	BETA 2
ROTOR -T.E.	BETA 3	62.047	59.422	56.613	48.716	47.112	47.011	51.764	53.204	54.237	BETA 3
	BETA(PR) 2	44.641	45.100	45.508	46.581	48.010	50.109	52.057	52.900	53.621	BETA(PR) 2
	BETA(PR) 3	-17.397	-12.090	-7.328	3.778	11.567	17.853	21.235	23.050	24.938	BETA(PR) 3
	V 2	180.42	180.53	181.57	183.88	185.73	183.42	178.27	175.18	172.90	V 2
	V 3	281.02	278.81	277.61	277.17	265.39	255.02	244.48	240.27	236.49	V 3
	VZ 2	177.78	177.99	179.12	181.28	182.39	179.65	174.00	170.71	168.23	VZ 2
	VZ 3	131.51	141.63	152.72	182.82	180.47	172.61	150.90	143.60	136.90	VZ 3
	V-THETA 2	30.78	30.17	29.66	30.22	32.97	33.01	33.69	34.01	34.44	V-THETA 2
	V-THETA 3	247.62	239.69	231.72	208.22	194.29	186.24	191.73	191.99	192.18	V-THETA 3
	V(PR) 2	249.9	252.4	255.6	263.8	272.9	280.6	283.6	283.7	284.4	V(PR) 2
	V(PR) 3	138.8	143.6	154.1	183.3	184.5	183.0	162.6	156.8	151.8	V(PR) 3
	VTHETA PR2	-175.6	-178.6	-182.3	-191.6	-202.6	-214.9	-223.2	-225.7	-228.4	VTHETA PR2
	VTHETA PR3	41.2	30.3	19.6	-12.1	-36.9	-55.9	-58.6	-61.1	-63.7	VTHETA PR3
	U 2	206.34	208.79	211.99	221.80	235.61	247.94	256.85	259.73	262.79	U 2
	U 3	206.61	209.35	212.08	220.29	231.22	242.16	250.36	253.10	255.84	U 3
	M 2	0.5458	0.5461	0.5494	0.5569	0.5628	0.5554	0.5389	0.5290	0.5217	M 2
	M 3	0.8179	0.8117	0.8095	0.8133	0.7772	0.7439	0.7070	0.6933	0.6810	M 3
	M(PR) 2	0.7558	0.7628	0.7734	0.7989	0.8270	0.8497	0.8574	0.8567	0.8581	M(PR) 2
	M(PR) 3	0.4039	0.4239	0.4494	0.5380	0.5404	0.5337	0.4703	0.4526	0.4371	M(PR) 3
	TURN(PR)	61.915	57.123	52.827	42.790	36.402	32.193	30.754	29.789	28.653	TURN(PR)
	UUBAR	0.3538	0.2958	0.2280	0.0121	-0.0098	0.0080	0.1130	0.1349	0.1534	UUBAR
	LOSS PARA	0.1087	0.0945	0.0750	0.0042	-0.0035	0.0029	0.0423	0.0504	0.0572	LOSS PARA
	DFAC	0.7246	0.6944	0.6592	0.5378	0.5379	0.5557	0.6463	0.6692	0.6899	DFAC
	EFFP	0.7612	0.7899	0.8352	0.9887	1.0066	0.9949	0.9007	0.8835	0.8678	EFFP
	EFF	0.7479	0.7780	0.8255	0.9880	1.0070	0.9946	0.8950	0.8768	0.8603	EFF
	INCID	-11.009	-9.300	-8.493	-7.255	-6.501	-5.462	-4.782	-4.833	-5.575	INCID
	DEVM	16.625	14.077	12.680	11.776	9.347	8.295	9.834	12.028	15.192	DEVM
	P 2	10.030	10.069	10.097	10.136	10.165	10.136	10.066	10.023	9.991	P 2
	P 3	14.751	14.935	15.148	15.736	15.566	15.382	15.035	14.903	14.797	P 3
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	T 3	333.055	332.333	331.055	327.222	325.222	324.833	327.278	327.611	327.944	T 3
STATOR F	PCT SPAN	95.81	92.01	86.21	69.91	49.21	29.51	14.11	9.31	4.51	PCT SPAN
	DIA	0.423	0.427	0.432	0.448	0.468	0.487	0.502	0.506	0.511	DIA
STATOR-L.E.	BETA 3	62.419	58.696	55.183	46.742	45.170	45.200	49.941	51.370	52.727	BETA 3
STATOR-T.E.	BETA 4	10.584	10.555	10.447	10.235	10.102	10.193	10.284	10.319	10.363	BETA 4
	V 3	279.66	280.67	282.29	286.17	274.09	263.70	251.75	247.11	242.91	V 3
	V 4	180.51	186.48	195.64	205.30	211.68	202.16	194.55	194.60	193.50	V 4
	VZ 3	129.48	145.82	161.22	196.04	193.05	185.46	161.64	153.80	146.73	VZ 3
	VZ 4	177.43	183.31	192.36	201.63	208.15	198.49	191.59	190.47	189.15	VZ 4
	V-THETA 3	247.87	239.80	231.82	208.34	194.20	186.76	192.23	192.56	192.80	V-THETA 3
	V-THETA 4	33.15	34.15	35.47	36.46	37.08	35.69	34.76	34.68	34.59	V-THETA 4
	M 3	0.8134	0.8178	0.8253	0.8434	0.8059	0.7722	0.7303	0.7150	0.7013	M 3
	M 4	0.5059	0.5241	0.5525	0.5852	0.6067	0.5779	0.5556	0.5525	0.5489	M 4
	TURN(PR)	51.836	48.140	44.731	36.494	35.025	34.922	39.541	40.927	42.235	TURN(PR)
	UUBAR	0.0627	0.0601	0.0480	0.0980	0.0504	0.1103	0.1216	0.1071	0.0950	UUBAR
	LOSS PARA	0.0197	0.0191	0.0155	0.0330	0.0179	0.0410	0.0467	0.0416	0.0372	LOSS PARA
	DFAC	0.6005	0.5735	0.5365	0.4894	0.4364	0.4525	0.4716	0.4691	0.4678	DFAC
	EFFP	0.9141	0.9144	0.9271	0.8409	0.9011	0.7821	0.7450	0.7645	0.7820	EFFP
	INCID	-2.581	-0.706	-0.624	-5.577	-7.485	-9.460	-7.720	-7.508	-7.668	INCID
	DEVM	15.833	16.553	16.244	14.980	14.190	14.168	14.240	13.465	12.897	DEVM
	P 3	14.751	14.935	15.148	15.736	15.566	15.382	15.035	14.903	14.797	P 3
	P 4	14.425	14.616	14.886	15.162	15.293	14.829	14.489	14.443	14.404	P 4
	T 3	333.055	332.333	331.055	327.222	325.222	324.833	327.278	327.611	327.944	T 3
	T 4	333.055	332.333	331.055	327.222	325.222	324.833	327.278	327.611	327.944	T 4

Table B-3. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 93.58 Equivalent Rotor Speed = 9298 Equivalent Weight Flow = 16.36 kg/sec
Uniform Inlet
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	95.79	91.71	86.89	70.41	49.21	29.10	13.80	9.00	4.70	PCT SPAN
	DIA	0.425	0.432	0.439	0.464	0.495	0.526	0.549	0.556	0.562	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	12.375	12.040	11.859	12.052	13.020	13.254	13.814	14.460	15.076	BETA 2
	V 1	116.00	116.20	117.10	118.73	118.40	114.58	107.40	104.21	100.71	V 1
	V 2	132.65	134.00	134.67	135.95	136.49	132.42	128.02	126.50	124.84	V 2
	VZ 1	116.00	116.19	117.09	118.69	118.34	114.36	107.13	103.92	100.41	VZ 1
	VZ 2	129.56	131.04	131.76	132.82	132.61	128.22	123.38	121.48	119.45	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	28.43	27.95	27.67	28.36	30.66	30.20	30.34	31.32	32.18	V-THETA 2
	M 1	0.3449	0.3455	0.3483	0.3532	0.3524	0.3406	0.3188	0.3091	0.2986	M 1
	M 2	0.3959	0.4000	0.4021	0.4060	0.4077	0.3952	0.3816	0.3770	0.3719	M 2
	TURN	-12.37	-12.04	-11.86	-12.04	-12.98	-13.18	-13.71	-14.34	-14.94	TURN
	UUBAR	0.0310	0.0308	0.0347	0.0294	0.0	0.0360	0.0360	0.0219	0.0059	UUBAR
	DFAC	-0.045	-0.056	-0.054	-0.047	-0.044	-0.043	-0.069	-0.080	-0.094	DFAC
	EFFP	0.9128	0.9187	0.9077	0.9179	0.9999	0.9076	0.9244	0.9576	0.9896	EFFP
	INCID	5.9000	5.9200	5.9700	6.2500	6.6600	7.0000	7.3200	7.4200	7.4200	INCID
	DEVM	4.625	5.261	5.824	6.760	7.257	8.427	8.992	8.713	8.344	DEVM
	P 1	10.083	10.104	10.122	10.161	10.182	10.157	10.083	10.048	10.009	P 1
	P 2	10.059	10.080	10.094	10.136	10.182	10.129	10.059	10.034	10.006	P 2
	T 1	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 1
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
ROTOR F	PCT SPAN	95.01	89.99	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA	0.425	0.430	0.436	0.453	0.475	0.498	0.515	0.520	0.526	DIA
ROTOR -L.E.	BETA 2	9.506	9.420	9.330	9.522	10.210	10.413	10.899	11.416	11.887	BETA 2
ROTOR -T.E.	BETA 3	61.731	59.759	57.543	49.311	47.781	47.941	52.704	54.696	56.697	BETA 3
	BETA(PR) 2	46.268	46.870	47.381	48.328	49.569	52.003	54.019	54.602	55.261	BETA(PR) 2
	BETA(PR) 3	-16.376	-11.671	-7.248	3.928	11.671	18.283	21.899	23.758	26.137	BETA(PR) 3
	V 2	172.65	171.72	171.86	174.39	177.34	173.07	167.72	165.84	163.75	V 2
	V 3	279.31	276.11	273.76	274.61	263.35	251.85	241.60	237.08	232.13	V 3
	VZ 2	170.28	169.40	169.58	171.90	174.17	169.51	163.74	161.53	159.14	VZ 2
	VZ 3	132.06	138.86	146.87	178.98	176.82	168.44	146.11	136.74	127.20	VZ 3
	V-THETA 2	28.51	28.11	27.86	28.83	31.37	31.15	31.53	32.62	33.50	V-THETA 2
	V-THETA 3	245.58	238.20	230.93	208.17	194.88	186.69	191.82	193.10	193.62	V-THETA 3
	V(PR) 2	246.3	247.8	250.4	258.6	268.8	275.8	279.3	279.5	279.9	V(PR) 2
	V(PR) 3	138.6	142.6	148.2	179.5	180.9	178.0	158.2	150.1	142.5	V(PR) 3
	VTHETA PR2	-178.0	-180.8	-184.3	-193.1	-204.4	-217.0	-225.5	-227.3	-229.5	VTHETA PR2
	VTHETA PR3	28.8	28.7	18.7	-12.3	-36.5	-55.7	-58.7	-60.2	-62.4	VTHETA PR3
	U 2	206.50	208.94	212.15	221.97	235.79	248.13	257.05	259.93	263.00	U 3
	U 3	206.77	209.51	212.25	220.46	231.40	242.34	250.56	253.29	256.03	U 3
	M 2	0.5209	0.5180	0.5184	0.5265	0.5259	0.5223	0.5053	0.4994	0.4927	M 2
	M 3	0.8121	0.8025	0.7963	0.8013	0.7697	0.7329	0.6972	0.6825	0.6666	M 3
	M(PR) 2	0.7432	0.7474	0.7555	0.7808	0.8123	0.8323	0.8414	0.8415	0.8423	M(PR) 2
	M(PR) 3	0.4030	0.4143	0.4211	0.5238	0.5286	0.5179	0.4565	0.4322	0.4091	M(PR) 3
	TURN(PR)	62.528	58.477	54.620	44.288	37.856	33.639	32.058	30.789	29.083	TURN(PR)
	UUBAR	0.3382	0.2907	0.2346	0.0103	-0.0104	0.0126	0.1159	0.1465	0.1737	UUBAR
	LOSS PARA	0.1045	0.0930	0.0772	0.0036	-0.0037	0.0046	0.0432	0.0545	0.0641	LOSS PARA
	DFAC	0.7214	0.7022	0.6772	0.5451	0.5475	0.5693	0.6600	0.6919	0.7219	DFAC
	EFFP	0.7771	0.7993	0.8356	0.9359	1.0048	0.9907	0.9023	0.8784	0.8550	EFFP
	EFF	0.7643	0.7876	0.8259	0.9318	1.0051	0.9901	0.8965	0.8713	0.8468	EFF
	INCID	-9.382	-7.530	-6.621	-5.507	-4.942	-3.567	-2.816	-3.128	-3.931	INCID
	DEVM	17.640	14.493	12.760	11.925	9.452	8.724	10.496	12.733	16.386	DEVM
	P 2	10.059	10.080	10.094	10.136	10.182	10.129	10.059	10.034	10.006	P 2
	P 3	14.926	15.049	15.190	15.776	15.684	15.444	15.123	14.978	14.823	P 3
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	T 3	333.167	332.555	331.389	329.833	325.833	325.444	327.889	328.278	328.611	T 3
STATOR F	PCT SPAN	95.81	92.01	86.21	69.91	49.21	29.51	14.11	9.21	4.51	PCT SPAN
	DIA	0.423	0.427	0.432	0.448	0.468	0.487	0.502	0.506	0.511	DIA
STATOR-L.E.	BETA 3	62.081	59.052	56.153	47.421	45.856	46.151	50.851	52.827	54.813	BETA 3
STATOR-T.E.	BETA 4	11.113	11.175	11.175	11.146	10.599	10.670	10.253	10.151	10.138	BETA 4
	V 3	277.99	277.87	278.18	282.96	271.69	260.07	248.56	243.63	238.23	V 3
	V 4	171.00	174.60	181.80	201.30	197.53	190.47	185.32	183.23	181.60	V 4
	VZ 3	130.16	142.89	154.93	191.40	189.05	179.83	156.57	146.86	136.96	VZ 3
	VZ 4	167.78	171.27	178.41	197.40	193.93	186.73	181.58	179.44	177.63	VZ 4
	V-THETA 3	245.63	238.31	231.02	208.30	194.78	187.21	192.33	193.67	194.24	V-THETA 3
	V-THETA 4	32.96	32.83	35.25	38.86	36.29	35.18	32.84	32.13	31.76	V-THETA 4
	M 3	0.8078	0.8082	0.8109	0.8289	0.7971	0.7595	0.7193	0.7031	0.6857	M 3
	M 4	0.4779	0.4889	0.5113	0.5706	0.5629	0.5419	0.5244	0.5178	0.5127	M 4
	TURN(PR)	50.968	47.876	44.974	36.262	35.215	35.398	40.483	42.554	44.548	TURN(PR)
	UUBAR	0.0616	0.0631	0.0516	0.0493	0.0717	0.0979	0.0961	0.0855	0.0653	UUBAR
	LOSS PARA	0.0193	0.0200	0.0166	0.0165	0.0254	0.0363	0.0369	0.0332	0.0256	LOSS PARA
	DFAC	0.6299	0.6106	0.5782	0.4948	0.4853	0.4912	0.5092	0.5140	0.5144	DFAC
	EFFP	0.9203	0.9163	0.9280	0.9214	0.8781	0.8269	0.8194	0.8347	0.8685	EFFP
	INCID	-2.919	-0.350	0.347	-4.898	-6.799	-8.508	-6.808	-6.048	-5.578	INCID
	DEVM	16.363	17.174	16.973	15.890	14.686	14.644	14.209	13.298	12.374	DEVM
	P 3	14.926	15.049	15.190	15.776	15.684	15.444	15.123	14.978	14.823	P 3
	P 4	14.604	14.717	14.915	15.494	15.300	14.964	14.700	14.618	14.562	P 4
	T 3	333.167	332.555	331.389	329.833	325.833	325.444	327.889	328.278	328.611	T 3
	T 4	333.167	332.555	331.389	329.833	325.833	325.444	327.889	328.278	328.611	T 4

ORIGINAL PAGE IS
OF POOR QUALITY

Table B-3. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 93.72 Equivalent Rotor Speed = 9311.98 Equivalent Weight Flow = 15.749 kg/sec
Uniform Inlet
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	95.79	91.71	86.89	70.41	49.21	29.10	13.80	4.00	4.70	PCT SPAN
	DIA	0.425	0.432	0.439	0.464	0.495	0.526	0.549	0.556	0.562	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	12.649	12.186	11.930	12.165	12.848	13.348	13.666	14.071	14.456	BETA 2
	V 1	112.79	113.11	113.84	114.78	114.82	111.36	105.49	101.78	97.95	V 1
	V 2	126.88	128.62	129.74	131.23	131.19	128.66	124.09	122.05	119.96	V 2
	VZ 1	112.79	113.10	113.82	114.74	114.70	111.16	105.22	101.51	97.66	VZ 1
	VZ 2	123.80	125.71	126.91	128.16	127.54	124.72	119.67	117.40	115.10	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	27.78	27.15	26.81	27.63	29.09	29.59	29.10	29.43	29.63	V-THETA 2
	M 1	0.3351	0.3361	0.3383	0.3412	0.3413	0.3308	0.3130	0.3018	0.2903	M 1
	M 2	0.3781	0.3835	0.3869	0.3915	0.3914	0.3842	0.3696	0.3634	0.3570	M 2
	TURN	-12.65	-12.18	-11.93	-12.15	-12.81	-13.28	-13.56	-13.95	-14.32	TURN
	UUBAR	0.0651	0.0554	0.0455	0.0268	0.0178	0.0189	0.0530	0.0456	0.0370	UUBAR
	DFAC	-0.026	-0.040	-0.044	-0.045	-0.039	-0.044	-0.056	-0.070	-0.087	DFAC
	EFFP	0.8108	0.8477	0.8737	0.9236	0.9478	0.9465	0.9435	0.9092	0.8935	EFFP
	INCID	5.9000	5.9200	5.9700	6.2500	6.6600	7.0000	7.2200	7.4200	7.4200	INCID
	DFVM	4.351	5.116	5.753	6.647	7.429	8.333	9.139	9.098	8.654	DFVM
	P 1	10.091	10.117	10.126	10.155	10.176	10.155	10.098	10.056	10.014	P 1
	P 2	10.042	10.070	10.091	10.134	10.162	10.141	10.063	10.028	9.992	P 2
	T 1	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 1
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	UUBAR FS										UUBAR FS
	P1 FS										P1 FS
	LOSS PARA FS										LOSS PARA
ROTOR F	PCT SPAN	95.01	89.99	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA	0.425	0.430	0.436	0.453	0.475	0.498	0.515	0.520	0.526	DIA
ROTOR -L.E.	BETA 2	9.778	9.588	9.435	9.662	10.139	10.630	10.831	11.165	11.460	BETA 2
ROTOR -T.E.	BETA 3	60.851	58.779	56.658	49.579	47.511	48.089	52.410	54.280	55.944	BETA 3
	BETA(PR) 2	47.898	48.390	48.777	49.666	51.122	53.010	55.175	55.644	56.760	BETA(RE) 2
	BETA(PR) 3	-15.316	-10.910	-6.977	-4.185	12.341	18.155	21.473	23.111	25.248	BETA(PR) 3
	V 2	164.08	163.90	164.73	167.67	169.36	167.71	161.87	159.25	156.55	V 2
	V 3	280.36	278.25	276.81	273.08	262.02	252.37	243.54	239.56	235.18	V 3
	VZ 2	161.70	161.61	162.50	165.01	166.40	164.76	158.05	155.25	152.28	VZ 2
	VZ 3	136.21	144.01	152.10	177.01	176.84	168.32	148.27	139.58	121.43	VZ 3
	V-THETA 2	27.87	27.30	27.00	28.74	29.76	30.52	30.24	30.64	30.89	V-THETA 2
	V-THETA 3	244.41	237.59	231.18	207.84	193.06	187.52	192.61	194.10	194.44	V-THETA 3
	V(PR) 2	241.2	243.4	246.6	254.9	265.3	273.3	277.3	277.8	278.4	V(RE) 2
	V(PR) 3	142.3	147.5	153.4	177.6	181.3	177.7	160.1	152.5	146.1	V(RE) 3
	VTHETA PR2	-178.9	-182.0	-185.5	-194.2	-206.4	-218.0	-227.2	-229.7	-232.5	VTHETA PR2
	VTHETA PR3	37.3	27.8	18.6	-13.0	-38.7	-55.7	-58.3	-58.6	-62.0	VTHETA PR3
	U 2	206.81	209.26	212.47	222.30	236.15	248.50	257.43	260.32	263.39	U 2
	U 3	207.08	209.83	212.57	220.79	231.75	242.71	250.93	253.67	256.42	U 3
	M 2	0.4938	0.4932	0.4958	0.5045	0.5106	0.5053	0.4868	0.4786	0.4701	M 2
	M 3	0.8157	0.8096	0.8061	0.7983	0.7655	0.7340	0.7028	0.6894	0.6751	M 3
	M(PR) 2	0.7258	0.7324	0.7422	0.7679	0.7998	0.8235	0.8340	0.8348	0.8366	M(RE) 2
	M(PR) 3	0.4141	0.4291	0.4467	0.5199	0.5297	0.5168	0.4619	0.4389	0.4194	M(RE) 3
	TURN(PR)	63.104	59.240	55.745	45.449	38.741	34.796	33.640	32.779	31.470	TURN(PR)
	UUBAR	0.3542	0.2985	0.2379	0.0485	0.0198	0.0454	0.1389	0.1701	0.1949	UUBAR
	LOSS PARA	0.1100	0.0958	0.0782	0.0171	0.0071	0.0167	0.0519	0.0636	0.0729	LOSS PARA
	DFAC	0.6993	0.6769	0.6526	0.5466	0.5396	0.5684	0.6539	0.6858	0.7125	DFAC
	EFFP	0.7761	0.8049	0.8415	0.9657	0.9835	0.9620	0.8883	0.8630	0.8417	EFFP
	EFF	0.7634	0.7935	0.8320	0.9635	0.9825	0.9597	0.8817	0.8550	0.8328	EFF
	INCID	-7.752	-6.010	-5.225	-4.189	-3.388	-2.550	-1.658	-1.782	-2.429	INCID
	DFVM	18.694	15.250	13.030	12.182	10.121	8.595	10.071	12.089	15.501	DFVM
	P 2	10.042	10.070	10.091	10.134	10.162	10.141	10.063	10.028	9.992	P 2
	P 3	14.881	15.063	15.253	15.625	15.492	15.344	15.098	14.972	14.839	P 3
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	T 3	333.055	332.444	331.555	327.555	325.722	325.889	328.333	329.055	329.555	T 3
STATOR F	PCT SPAN	95.81	92.01	86.21	69.91	49.21	29.51	14.11	9.31	4.51	PCT SPAN
	DIA	0.423	0.427	0.432	0.448	0.468	0.487	0.502	0.506	0.511	DIA
STATOR-L.E.	BETA 3	61.187	58.071	55.249	47.690	45.636	46.282	50.543	52.398	54.080	BETA 3
STATOR-T.E.	BETA 4	12.383	12.282	12.068	11.513	11.136	10.856	10.001	9.405	8.900	BETA 4
	V 3	279.01	280.08	281.50	281.30	270.17	260.64	250.69	246.31	241.51	V 3
	V 4	160.59	164.07	175.10	190.20	186.58	179.66	176.65	174.21	171.14	V 4
	VZ 3	134.47	148.12	160.45	189.30	188.73	179.80	158.95	149.94	141.41	VZ 3
	VZ 4	156.85	162.25	171.19	186.28	182.85	176.02	173.22	170.98	168.00	VZ 4
	V-THETA 3	244.47	237.70	231.27	207.96	192.97	188.03	193.11	194.68	195.06	V-THETA
	V-THETA 4	34.44	35.32	36.60	37.94	35.99	33.76	30.55	28.32	26.31	V-THETA
	M 3	0.8113	0.8157	0.8216	0.8266	0.7922	0.7608	0.7256	0.7107	0.6950	M 3
	M 4	0.4477	0.4640	0.4911	0.5393	0.5300	0.5092	0.4982	0.4905	0.4810	M 4
	TURN(PR)	48.804	45.788	43.177	36.165	34.458	35.343	40.426	42.866	45.024	TURN(PR)
	UUBAR	0.0618	0.0658	0.0553	0.0411	0.0548	0.0920	0.0865	0.0820	0.0772	UUBAR
	LOSS PARA	0.0193	0.0208	0.0177	0.0138	0.0194	0.0341	0.0333	0.0319	0.0304	LOSS PAR
	DFAC	0.6656	0.6417	0.6061	0.5320	0.5209	0.5370	0.5527	0.5636	0.5746	DFAC
	EFFP	0.9257	0.9186	0.9282	0.9403	0.9157	0.8560	0.8567	0.8624	0.8691	EFFP
	INCID	-3.813	-1.331	-0.558	-4.628	-7.019	-8.378	-7.117	-6.478	-6.333	INCID
	DEVM	17.633	18.281	17.866	16.257	15.223	14.820	13.958	12.556	11.143	DEVM
	P 3	14.881	15.063	15.253	15.625	15.492	15.344	15.098	14.972	14.839	P 3
	P 4	14.558	14.712	14.951	15.393	15.204	14.895	14.712	14.621	14.523	P 4
	T 3	333.055	332.444	331.555	327.555	325.722	325.889	328.333	329.055	329.555	T 3
	T 4	333.055	332.444	331.555	327.555	325.722	325.889	328.333	329.055	329.555	T 4

Table B-3. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 93.58 Equivalent Rotor Speed = 9298.59 Equivalent Weight Flow = 15.247 kg/sec
Uniform Inlet
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	95.79	91.71	86.89	70.41	49.21	29.10	13.80	9.00	4.70	PCT SPAN
	DIA	0.465	0.432	0.439	0.464	0.495	0.526	0.549	0.556	0.562	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	12.385	11.976	11.731	11.912	13.043	13.346	13.777	14.203	14.544	BETA 2
	V 1	106.29	107.65	108.48	110.15	110.26	106.32	100.35	98.22	95.42	V 1
	V 2	121.80	123.37	124.26	125.74	125.28	122.66	118.66	116.88	114.64	V 2
	VZ 1	108.29	107.64	108.47	110.11	110.14	106.12	100.10	97.96	95.14	VZ 1
	VZ 2	118.96	120.67	121.64	122.91	121.71	118.73	114.38	112.37	109.96	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	26.12	25.60	25.26	25.43	28.19	28.17	28.05	28.44	28.53	V-THETA 2
	M 1	0.3215	0.3196	0.3221	0.3271	0.3275	0.3155	0.2975	0.2911	0.2826	M 1
	M 2	0.3626	0.3674	0.3701	0.3747	0.3733	0.3652	0.3530	0.3476	0.3408	M 2
	TURN	-12.39	-11.97	-11.73	-11.90	-13.01	-13.28	-13.67	-14.08	-14.41	TURN
	UUBAR	0.0555	0.0306	0.0251	0.0146	0.0145	0.0052	0.0059	0.0184	0.0325	UUBAR
	DFAC	-0.028	-0.050	-0.051	-0.045	-0.029	-0.041	-0.061	-0.061	-0.066	DFAC
	EFFP	0.8334	0.9148	0.9289	0.9563	0.9547	0.9852	0.9861	0.9594	0.9341	EFFP
	INCID	5.9000	5.9200	5.9700	6.2500	6.6600	7.0000	7.3200	7.4200	7.4200	INCID
	DEVM	4.615	5.325	5.952	6.900	7.234	8.335	9.028	8.967	8.872	DEVM
	P 1	10.099	10.106	10.120	10.155	10.176	10.148	10.091	10.070	10.042	P 1
	P 2	10.060	10.084	10.102	10.144	10.165	10.144	10.088	10.060	10.025	P 2
	T 1	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 1
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	UUBAR FS										UUBAR FS
	P1 FS										P1 FS
	LOSS PARA FS										LOSS PARA FS
ROTOR F	PCT SPAN	95.01	89.99	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA	0.425	0.430	0.436	0.453	0.475	0.498	0.515	0.520	0.526	DIA
ROTOR -L.E.	BETA 2	9.625	9.471	9.327	9.513	10.357	10.598	10.978	11.328	11.590	BETA 2
ROTOR -T.E.	BETA 3	59.905	58.005	55.921	48.935	47.177	48.579	52.428	54.837	56.584	BETA 3
	BETA(PR) 2	49.405	48.899	50.326	51.141	52.672	54.673	56.605	57.308	58.173	BETA(PR) 2
	BETA(PR) 3	-14.825	-10.809	-6.527	4.284	12.198	18.273	21.230	22.632	24.909	BETA(PR) 3
	V 2	156.72	156.42	156.96	159.60	160.77	158.64	153.95	151.73	148.85	V 2
	V 3	282.84	280.96	279.31	274.58	263.07	250.67	243.25	239.98	235.29	V 3
	VZ 2	154.51	154.29	154.88	157.33	157.83	155.28	150.26	147.83	144.81	VZ 2
	VZ 3	141.56	148.63	156.46	180.32	178.67	165.59	146.36	137.93	129.32	VZ 3
	V-THETA 2	26.20	25.74	25.44	26.36	28.84	29.05	29.15	29.61	29.70	V-THETA 2
	V-THETA 3	244.25	237.90	231.27	206.96	192.79	187.68	193.72	195.80	196.00	V-THETA 3
	VI(PR) 2	237.5	239.5	242.6	251.1	260.5	268.9	273.5	274.2	275.2	VI(PR) 2
	VI(PR) 3	147.5	152.1	157.8	181.0	183.1	174.9	157.7	150.2	143.4	VI(PR) 3
	VTHETA PR2	-180.3	-183.2	-186.7	-195.6	-207.0	-219.1	-227.9	-230.3	-233.3	VTHETA PR2
	VTHETA PR3	37.5	28.4	19.3	-13.5	-38.6	-54.7	-56.9	-57.5	-60.1	VTHETA PR3
	U 2	206.51	208.96	212.16	221.98	235.81	248.15	257.06	259.95	263.01	U 2
	U 3	206.78	209.53	212.26	220.47	231.42	242.36	250.57	253.30	256.05	U 3
	M 2	0.4706	0.4697	0.4714	0.4797	0.4824	0.4767	0.4620	0.4550	0.4460	M 2
	M 3	0.8236	0.8181	0.8139	0.8040	0.7688	0.7281	0.7013	0.6901	0.6747	M 3
	M(PR) 2	0.7131	0.7192	0.7286	0.7546	0.7831	0.8080	0.8207	0.8223	0.8245	M(PR) 2
	M(PR) 3	0.4294	0.4430	0.4597	0.5298	0.5351	0.5081	0.4547	0.4319	0.4111	M(PR) 3
	TURN(PR)	64.124	60.649	57.245	46.895	40.435	36.342	35.316	34.623	33.225	TURN(PR)
	UUBAR	0.1550	0.2959	0.2324	0.0434	0.0164	0.0789	0.1696	0.2005	0.2280	UUBAR
	LOSS PARA	0.1105	0.0950	0.0765	0.0150	0.0059	0.0240	0.0635	0.0752	0.0851	LOSS PARA
	DFAC	0.6750	0.6547	0.6311	0.5275	0.5250	0.5740	0.6606	0.6943	0.7230	DFAC
	EFFP	0.7825	0.8122	0.8457	0.9689	0.9804	0.9358	0.8667	0.8444	0.8195	EFFP
	EFF	0.7700	0.8011	0.8406	0.9670	0.9855	0.9320	0.8589	0.8355	0.8093	EFF
	INCID	-6.245	-4.501	-3.675	-2.644	-1.838	-0.894	-0.225	-0.415	-1.012	INCID
	DEVM	19.182	15.350	13.080	12.281	9.977	8.714	9.829	11.612	15.163	DEVM
	P 2	10.060	10.084	10.102	10.144	10.165	10.144	10.088	10.060	10.025	P 2
	P 3	14.589	15.190	15.377	15.701	15.535	15.229	15.056	14.965	14.817	P 3
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	T 3	333.333	332.833	331.989	327.778	325.833	326.222	328.833	329.611	330.222	T 3
STATOR F	PCT SPAN	95.81	92.01	86.21	69.91	49.21	29.51	14.11	9.31	4.51	PCT SPAN
	DIA	0.423	0.427	0.432	0.448	0.468	0.487	0.502	0.506	0.511	DIA
STATOR-L.E.	BETA 3	60.235	57.288	54.495	47.043	45.298	46.783	51.036	52.914	54.658	BETA 3
STATOR-T.E.	BETA 4	12.845	12.634	12.369	11.872	11.445	11.125	9.956	9.270	8.692	BETA 4
	V 3	281.44	282.89	284.23	283.05	271.37	258.71	250.36	246.75	241.62	V 3
	V 4	155.82	162.01	172.00	186.43	181.45	174.54	172.74	171.43	169.29	V 4
	VZ 3	139.71	152.87	165.06	192.63	190.71	176.84	157.08	148.45	139.43	VZ 3
	VZ 4	151.91	158.07	167.97	182.35	177.63	170.85	169.39	168.31	166.28	VZ 4
	V-THETA 3	244.31	238.02	231.36	207.09	192.70	188.20	194.22	196.38	196.62	V-THETA 3
	V-THETA 4	34.64	35.43	36.83	38.33	35.96	33.60	29.86	27.47	25.42	V-THETA 4
	M 3	0.8189	0.8244	0.8302	0.8322	0.7961	0.7541	0.7239	0.7115	0.6945	M 3
	M 4	0.4337	0.4520	0.4818	0.5278	0.5145	0.4937	0.4863	0.4818	0.4751	M 4
	TURN(PR)	47.391	44.652	42.122	35.158	33.811	35.575	40.961	43.517	45.830	TURN(PR)
	UUBAR	0.0903	0.0940	0.0787	0.0608	0.0757	0.0810	0.0794	0.0739	0.0586	UUBAR
	LOSS PARA	0.0281	0.0296	0.0252	0.0204	0.0267	0.0300	0.0306	0.0288	0.0231	LOSS PARA
	DFAC	0.6850	0.6599	0.6206	0.5467	0.5416	0.5538	0.5705	0.5798	0.5865	DFAC
	EFFP	0.8949	0.8875	0.9009	0.9150	0.8896	0.8776	0.8735	0.8802	0.9029	EFFP
	INCID	-4.765	-2.115	-1.312	-5.278	-7.357	-7.877	-6.624	-5.961	-5.733	INCID
	DEVM	18.094	18.633	18.166	16.616	15.531	15.098	13.955	12.421	10.937	DEVM
	P 3	14.589	15.190	15.377	15.701	15.535	15.229	15.056	14.965	14.817	P 3
	P 4	14.507	14.676	14.937	15.252	15.134	14.841	14.704	14.648	14.577	P 4
	T 3	333.333	332.833	331.989	327.778	325.833	326.222	328.833	329.611	330.222	T 3
	T 4	333.333	332.833	331.889	327.778	325.833	326.222	328.833	329.611	330.222	T 4

ORIGINAL PAGE IS
OF POOR QUALITY

Table B-3. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 93.95 Equivalent Rotor Speed = 9335.00 Equivalent Weight Flow = 14.696 kg/sec
Uniform Inlet
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	96.79	91.71	86.89	70.41	49.21	29.10	13.80	9.00	4.70	PCT SPAN
	DIA	0.425	0.432	0.439	0.444	0.495	0.526	0.549	0.556	0.562	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	12.716	11.941	11.709	11.739	12.704	13.090	14.030	14.374	14.689	BETA 2
	V 1	104.92	105.04	106.38	107.33	107.51	103.72	97.09	93.61	90.09	V 1
	V 2	116.25	117.85	119.26	120.02	120.18	117.70	113.28	111.46	109.78	V 2
	VZ 1	104.92	105.04	106.37	107.29	107.40	103.53	96.84	93.36	89.82	VZ 1
	VZ 2	113.57	115.29	116.76	118.28	116.91	114.04	109.08	107.08	105.22	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	24.80	24.38	24.20	24.58	26.35	26.52	27.26	27.44	27.58	V-THETA 2
	M 1	0.3113	0.3117	0.3157	0.3186	0.3191	0.3077	0.2877	0.2772	0.2666	M 1
	M 2	0.3457	0.3505	0.3549	0.3599	0.3576	0.3501	0.3366	0.3311	0.3260	M 2
	TURN	-12.32	-11.94	-11.71	-11.73	-12.67	-13.02	-13.92	-14.25	-14.55	TURN
	UUBAR	0.0482	0.0374	0.0312	0.0102	0.0304	0.0326	0.0436	0.0336	0.0145	UUBAR
	DFAC	-0.013	-0.028	-0.029	-0.033	-0.015	-0.026	-0.044	-0.060	-0.080	DFAC
	EFFP	0.8314	0.8787	0.8961	0.9652	0.8958	0.9020	0.8960	0.9281	0.9718	EFFP
	INCID	5.9000	5.9200	5.9700	6.2500	6.6600	7.0000	7.3200	7.4200	7.4200	INCID
	DEVM	4.684	5.360	5.974	7.073	7.573	8.589	8.778	8.798	8.728	DEVM
	P 1	10.085	10.103	10.124	10.152	10.176	10.155	10.096	10.060	10.025	P 1
	P 2	10.053	10.078	10.103	10.146	10.155	10.134	10.071	10.043	10.018	P 2
	T 1	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 1
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	UUBAR FS										UUBAR FS
	P1 FS										P1 FS
	LOSS PARA FS										LOSS PARA FS
ROTOR F	PCT SPAN	95.01	89.99	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA	0.425	0.430	0.436	0.443	0.475	0.498	0.515	0.520	0.526	DIA
ROTOR -L.E.	BETA 2	9.620	9.489	9.348	9.416	10.138	10.446	11.233	11.518	11.753	BETA 2
ROTOR -T.E.	BETA 3	61.170	59.231	56.971	48.977	47.609	49.043	53.754	55.660	57.187	BETA 3
	BETA(PR) 2	51.193	51.627	51.878	52.704	54.291	56.218	58.167	58.895	59.607	BETA(PR) 2
	BETA(PR) 3	-15.431	-11.516	-7.550	4.299	12.103	18.141	20.495	21.712	23.306	BETA(PR) 3
	V 2	148.82	148.73	150.02	152.84	153.49	151.49	146.27	144.01	141.95	V 2
	V 3	279.91	279.02	278.22	275.45	263.27	251.22	245.27	242.57	239.84	V 3
	VZ 2	146.73	146.69	148.02	150.70	150.78	148.36	142.63	140.21	138.02	VZ 2
	VZ 3	134.74	142.53	151.60	180.74	177.35	164.42	144.75	136.58	129.71	VZ 3
	V-THETA 2	24.87	24.52	24.37	24.99	26.96	27.35	28.33	28.57	28.72	V-THETA 2
	V-THETA 3	244.78	239.29	233.18	207.75	194.29	189.44	197.45	199.91	201.17	V-THETA 3
	V(PR) 2	234.1	236.3	239.8	248.8	258.5	267.2	270.9	271.9	273.3	V(PR) 2
	V(PR) 3	140.8	146.2	153.1	181.4	181.7	173.6	155.2	147.8	142.0	V(PR) 3
	VTHETA PR2	-182.4	-185.3	-188.6	-197.9	-209.8	-221.8	-229.7	-232.4	-235.3	VTHETA PR2
	VTHETA PR3	37.2	29.0	20.1	-13.6	-38.0	-53.9	-54.1	-54.4	-55.9	VTHETA PR3
	U 2	207.32	209.78	212.99	222.85	236.73	249.12	258.07	260.96	264.04	U 2
	U 3	207.59	210.35	213.09	221.33	232.32	243.31	251.55	254.30	257.05	U 3
	M 2	0.4459	0.4456	0.4497	0.4585	0.4605	0.4543	0.4380	0.4310	0.4246	M 2
	M 3	0.8133	0.8107	0.8092	0.8061	0.7683	0.7288	0.7061	0.6966	0.6871	M 3
	M(PR) 2	0.7016	0.7081	0.7187	0.7462	0.7757	0.8012	0.8111	0.8137	0.8175	M(PR) 2
	M(PR) 3	0.4090	0.4249	0.4453	0.5308	0.5302	0.5035	0.4470	0.4243	0.4069	M(PR) 3
	TURN(PR)	66.514	63.080	59.418	48.394	42.151	38.023	37.615	37.132	36.261	TURN(PR)
	UUBAR	0.4102	0.3467	0.2767	0.0516	0.0396	0.0994	0.1857	0.2164	0.2388	UUBAR
	LOSS PARA	0.1273	0.1110	0.0909	0.0178	0.0142	0.0365	0.0699	0.0817	0.0902	LOSS PARA
	DFAC	0.7016	0.6787	0.6504	0.5245	0.5318	0.5813	0.6733	0.7082	0.7352	DFAC
	EFFP	0.7592	0.7900	0.8283	0.9662	0.9719	0.9240	0.8595	0.8410	0.8230	EFFP
	EFF	0.7456	0.7777	0.8179	0.9640	0.9701	0.9195	0.8511	0.8316	0.8125	EFF
	INCID	-4.457	-2.773	-2.123	-1.130	-0.217	0.654	1.341	1.177	0.427	INCID
	DEVM	18.580	14.647	12.458	12.296	9.882	8.581	9.097	10.696	13.567	DEVM
	P 2	10.053	10.078	10.103	10.146	10.155	10.134	10.071	10.043	10.018	P 2
	P 3	14.855	15.094	15.319	15.772	15.557	15.270	15.164	15.101	15.038	P 3
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	T 3	333.778	333.500	332.667	328.333	326.667	327.111	330.167	331.000	331.805	T 3
STATOR F	PCT SPAN	95.81	92.01	86.21	69.91	49.21	29.51	14.11	9.31	4.51	PCT SPAN
	DIA	0.423	0.427	0.432	0.448	0.488	0.487	0.502	0.506	0.511	DIA
STATOR-L.E.	BETA 3	61.508	58.511	55.524	47.062	45.707	47.213	51.775	53.638	55.158	BETA 3
STATOR-T.E.	BETA 4	11.762	11.792	11.844	12.031	11.213	10.127	9.001	8.279	7.674	BETA 4
	V 3	278.58	280.87	283.00	284.04	271.57	259.30	252.55	249.55	246.47	V 3
	V 4	149.43	155.23	165.06	181.41	176.11	172.83	173.04	171.98	170.66	V 4
	VZ 3	132.89	146.70	160.19	193.43	189.47	175.82	155.92	147.63	140.48	VZ 3
	VZ 4	146.29	151.93	161.52	177.34	172.54	169.72	170.17	169.30	168.05	VZ 4
	V-THETA 3	244.84	229.50	233.28	207.88	194.20	189.96	197.96	200.51	201.82	V-THETA 3
	V-THETA 4	30.46	21.72	33.87	37.79	34.20	30.31	26.96	24.63	22.64	V-THETA 4
	M 3	0.8089	0.8168	0.8250	0.8347	0.7956	0.7548	0.7293	0.7187	0.7080	M 3
	M 4	0.4150	0.4318	0.4609	0.5124	0.4980	0.4879	0.4861	0.4824	0.4779	M 4
	TURN(PR)	49.746	46.717	43.676	35.018	34.452	37.002	42.654	45.229	47.344	TURN(PR)
	UUBAR	0.0824	0.0970	0.0916	0.0868	0.0966	0.0818	0.0808	0.0798	0.0788	UUBAR
	LOSS PARA	0.0258	0.0307	0.0294	0.0290	0.0341	0.0304	0.0312	0.0312	0.0311	LOSS PARA
	DFAC	0.7101	0.6876	0.6491	0.5675	0.5659	0.5688	0.5834	0.5933	0.6020	DFAC
	EFFP	0.9062	0.8871	0.8885	0.8834	0.8648	0.8786	0.8732	0.8728	0.8727	EFFP
	INCID	-3.492	-0.892	-0.283	-5.257	-6.948	-7.446	-5.883	-5.236	-5.232	INCID
	DEVM	17.012	17.701	17.641	16.775	15.299	14.102	12.963	11.435	9.924	DEVM
	P 3	14.855	15.094	15.319	15.772	15.557	15.270	15.164	15.101	15.038	P 3
	P 4	14.427	14.575	14.813	15.270	15.045	14.876	14.799	14.750	14.701	P 4
	T 3	333.778	333.500	332.667	328.333	326.667	327.111	330.167	331.000	331.805	T 3
	T 4	333.778	333.500	332.667	328.333	326.667	327.111	330.167	331.000	331.805	T 4

Table B-3. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 82.96 Equivalent Rotor Speed = 8242.66 Equivalent Weight Flow = 16.698 kg/sec
Uniform Inlet
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	95.79	91.71	86.84	70.41	49.21	29.10	13.80	9.00	4.70	PCT SPAN
	DIA	0.425	0.432	0.439	0.464	0.495	0.526	0.549	0.556	0.562	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	12.644	12.050	11.751	12.303	13.226	13.600	14.270	14.991	15.969	BETA 2
	V 1	118.72	118.86	120.09	121.90	121.75	119.28	112.11	108.57	104.98	V 1
	V 2	134.92	136.91	138.14	140.68	139.17	136.74	132.34	130.36	128.56	V 2
	VZ 1	116.72	118.85	120.08	121.86	121.62	119.06	111.83	108.28	104.67	VZ 1
	VZ 2	131.64	133.88	135.21	136.73	135.10	132.22	127.29	124.89	122.50	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	29.53	28.58	28.13	29.82	31.75	31.99	32.38	33.44	35.[illegible]	V-THETA 2
	M 1	0.3532	0.3536	0.3574	0.3629	0.3624	0.3549	0.3331	0.3223	0.3115	M 1
	M 2	0.4029	0.4090	0.4128	0.4188	0.4160	0.4085	0.3949	0.3868	0.3833	M 2
	TURN	-12.64	-12.05	-11.75	-12.29	-13.19	-13.53	-14.16	-14.86	-15.82	TURN
	UUBAR	0.0468	0.0296	0.0248	0.0080	0.0160	0.0334	0.0332	0.0253	0.0109	UUBAR
	DFAC	-0.036	-0.055	-0.055	-0.049	-0.034	-0.032	-0.055	-0.064	-0.073	DFAC
	EFFP	0.8683	0.9211	0.9324	0.9770	0.9531	0.9089	0.9259	0.9482	0.9797	EFFP
	INCID	5.4000	5.9200	5.9700	6.2500	6.0600	7.0000	7.3700	7.4200	7.4200	INCID
	DEVM	4.356	5.251	5.932	6.509	7.051	8.082	8.539	8.185	7.456	DEVM
	P 1	10.072	10.093	10.114	10.157	10.178	10.171	10.093	10.051	10.008	P 1
	P 2	10.033	10.068	10.093	10.150	10.164	10.143	10.068	10.033	10.001	P 2
	T 1	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 1
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	UUBAR FS										UUBAR FS
	P1 FS										P1 FS
	LOSS PARA FS										LOSS PARA FS
ROTOR F	PCT SPAN	95.01	89.99	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA	0.425	0.430	0.436	0.453	0.475	0.498	0.515	0.520	0.526	DIA
ROTOR -L.E.	BETA 2	9.684	9.396	9.209	9.671	10.335	10.623	11.197	11.778	12.529	BETA 2
ROTOR -T.E.	BETA 3	63.764	57.522	53.368	44.320	42.499	44.713	47.413	48.602	50.200	BETA 3
	BETA(PR) 2	41.475	42.023	42.441	43.090	44.743	46.750	48.808	49.509	50.135	BETA(PR) 2
	BETA(PR) 3	-16.878	-9.072	-4.704	5.467	12.414	18.661	22.808	24.939	26.363	BETA(PR) 3
	V 2	176.09	176.03	176.98	180.59	181.45	179.71	174.30	171.69	169.38	V 2
	V 3	240.04	245.48	249.84	254.85	245.06	227.43	218.11	213.99	209.67	V 3
	VZ 2	173.56	173.00	174.69	177.93	178.13	175.89	169.98	167.01	164.22	VZ 2
	VZ 3	106.22	131.60	149.02	182.27	180.51	161.33	147.24	141.14	133.84	VZ 3
	V-THETA 2	29.62	28.74	28.32	30.32	32.48	32.99	33.65	34.82	36.50	V-THETA 2
	V-THETA 3	215.53	206.75	200.42	177.99	165.40	159.72	160.20	160.10	160.84	V-THETA 3
	V(PR) 2	231.7	233.8	236.7	243.7	251.1	257.2	256.8	257.9	257.0	V(PR) 2
	V(PR) 3	111.8	134.0	149.7	183.2	185.1	171.0	160.4	155.9	150.2	V(PR) 3
	VTHETA PR2	-153.4	-150.5	-159.7	-166.4	-176.5	-187.0	-194.2	-195.6	-196.6	VTHETA PR2
	VTHETA PR3	32.2	21.0	12.3	-17.4	-39.7	-55.1	-61.9	-64.4	-66.3	VTHETA PR3
	U 2	183.06	185.23	188.07	196.77	209.03	219.97	227.87	230.43	233.15	U 2
	U 3	183.30	185.73	188.16	195.44	205.14	214.84	222.12	224.54	226.97	U 3
	M 2	0.5319	0.5317	0.5347	0.5403	0.5440	0.5435	0.5262	0.5179	0.5106	M 2
	M 3	0.7011	0.7174	0.7326	0.7533	0.7237	0.6669	0.6364	0.6233	0.6049	M 3
	M(PR) 2	0.6998	0.7061	0.7153	0.7373	0.7597	0.7779	0.7812	0.7760	0.7746	M(PR) 2
	M(PR) 3	0.3257	0.3916	0.4389	0.5416	0.5467	0.5015	0.4681	0.4542	0.4368	M(PR) 3
	TURN(PR)	56.233	51.045	47.138	37.613	32.288	27.826	25.435	24.411	23.722	TURN(PR)
	UUBAR	0.5234	0.4065	0.3044	0.0471	0.0156	0.1163	0.1675	0.1819	0.1971	UUBAR
	LOSS PARA	0.1613	0.1318	0.1006	0.0163	0.0057	0.0476	0.0820	0.0869	0.0726	LOSS PARA
	DFAC	0.7762	0.6760	0.6089	0.4572	0.4541	0.5223	0.5726	0.5889	0.6100	DFAC
	EFFP	0.5978	0.6696	0.7510	0.9480	0.9823	0.8712	0.8184	0.8035	0.7795	EFFP
	EFF	0.5845	0.6575	0.7409	0.9450	0.9815	0.8661	0.8115	0.7961	0.7817	EFF
	INCID	-14.175	-12.377	-11.560	-10.745	-9.768	-8.824	-8.034	-8.228	-9.068	INCID
	DEVM	17.142	17.078	15.361	13.463	10.193	9.300	11.401	13.511	16.611	DEVM
	P 2	10.033	10.068	10.093	10.150	10.164	10.143	10.068	10.033	10.001	P 2
	P 3	12.692	13.002	13.342	13.943	13.837	13.328	13.112	13.009	12.903	P 3
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	T 3	321.944	321.389	320.444	317.111	315.222	315.167	316.000	316.055	316.000	T 3
STATOR F	PCT SPAN	95.81	92.01	88.21	69.91	49.21	29.51	14.11	9.31	4.51	PCT SPAN
	DIA	0.423	0.427	0.432	0.448	0.468	0.487	0.502	0.506	0.511	DIA
STATOR-L.E.	BETA 3	63.991	57.008	52.432	43.030	41.140	43.416	46.117	47.317	48.916	BETA 3
STATOR-T.E.	BETA 4	6.197	6.523	6.934	7.561	7.570	8.265	8.970	8.874	8.337	BETA 4
	V 3	239.87	240.62	242.98	241.09	241.56	233.51	223.46	219.08	214.46	V 3
	V 4	216.85	225.75	238.12	256.43	256.82	250.66	246.68	242.18	237.36	V 4
	VZ 3	105.18	134.29	154.22	190.79	189.25	169.27	154.47	148.39	140.51	VZ 3
	VZ 4	217.57	224.27	236.33	254.07	254.28	247.45	242.62	238.04	233.36	VZ 4
	V-THETA 3	215.58	206.84	200.50	178.10	165.32	160.17	160.62	160.58	161.16	V-THETA 3
	V-THETA 4	23.47	25.64	28.74	33.72	33.79	35.95	36.30	37.17	38.20	V-THETA 4
	M 3	0.6987	0.7210	0.7428	0.7740	0.7450	0.6864	0.6533	0.6394	0.6249	M 3
	M 4	0.6323	0.6545	0.6949	0.7565	0.7624	0.7421	0.7280	0.7133	0.6978	M 4
	TURN(PR)	57.836	50.483	45.493	35.455	33.525	35.082	37.023	39.308	40.432	TURN(PR)
	UUBAR	0.0855	0.1060	0.1047	0.0696	0.0797	0.0644	0.0877	0.1199	0.1493	UUBAR
	LOSS PARA	0.0272	0.0340	0.0276	0.0237	0.0284	0.0242	0.0339	0.0468	0.0589	LOSS PARA
	DFAC	0.3442	0.3232	0.2826	0.2083	0.1695	0.1302	0.1134	0.1212	0.1338	DFAC
	EFFP	0.5764	0.4611	0.3962	-0.5554	2.5103	1.3495	1.3352	1.4564	1.3670	EFFP
	INCID	-1.008	-2.395	-3.375	-4.289	-11.515	-11.243	-11.946	-11.564	-11.485	INCID
	DEVM	11.406	12.522	12.733	12.307	11.600	12.245	12.932	12.028	10.583	DEVM
	P 3	12.692	13.002	13.342	13.943	13.837	13.328	13.112	13.009	12.903	P 3
	P 4	12.351	12.599	12.995	13.625	13.498	13.094	12.825	12.694	12.497	P 4
	T 3	321.944	321.389	320.444	317.111	315.222	315.167	316.000	316.055	316.000	T 3
	T 4	321.944	321.389	320.444	317.111	315.222	315.167	316.000	316.055	316.000	T 4

ORIGINAL PAGE IS
OF POOR QUALITY

Table B-3. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 83.29 Equivalent Rotor Speed = 8276.11 Equivalent Weight Flow = 15.776 kg/sec
Uniform Inlet
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	95.79	91.71	86.89	70.41	49.21	29.10	13.80	6.00	4.70	PCT SPAN
	DIA	0.425	0.432	0.439	0.464	0.486	0.506	0.520	0.526	0.528	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	12.928	12.204	11.906	12.141	13.157	13.472	13.849	14.355	14.508	BETA 2
	V 1	111.50	111.23	111.97	113.86	114.14	110.95	107.23	98.40	95.52	V 1
	V 2	125.86	127.62	129.07	130.22	129.85	127.47	125.41	121.31	119.91	V 2
	VZ 1	111.50	111.23	111.97	113.82	114.02	110.75	107.97	98.63	95.25	VZ 1
	VZ 2	122.67	124.72	126.27	127.18	126.08	123.32	118.62	116.53	114.51	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	28.16	26.98	26.62	27.36	29.47	29.54	29.32	29.91	31.34	V-THETA 2
	M 1	0.3312	0.3304	0.3327	0.3384	0.3392	0.3296	0.3092	0.2931	0.2820	M 1
	M 2	0.3750	0.3804	0.3849	0.3884	0.3873	0.3800	0.3675	0.3611	0.3569	M 2
	TURN	-12.93	-12.20	-11.90	-12.13	-13.12	-13.40	-13.74	-14.27	-15.16	TURN
	UUBAR	0.0477	0.0287	0.0094	0.0182	0.0271	0.0282	0.0	0.0	-0.0105	UUBAR
	DFAC	-0.027	-0.049	-0.056	-0.045	-0.030	-0.035	-0.092	-0.062	-0.105	DFAC
	EFFP	0.8579	0.9205	0.9733	0.9469	0.9196	0.8979	0.9666	1.0000	1.0239	EFFP
	INCID	5.9000	5.9200	5.9700	6.2500	6.6600	7.0000	7.3200	7.4200	7.4200	INCID
	DEVM	4.072	5.097	5.776	6.671	7.121	8.209	8.958	8.777	8.116	DEVM
	P 1	10.085	10.099	10.113	10.155	10.183	10.169	10.078	10.042	10.009	P 1
	P 2	10.050	10.078	10.106	10.141	10.162	10.141	10.078	10.043	10.018	P 2
	T 1	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 1
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	UUBAR FS										UUBAR FS
	P1 FS										P1 FS
	LOSS PARA FS										LOSS PARA FS
ROTOR F	PCT SPAN	95.01	89.99	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA	0.425	0.430	0.436	0.453	0.475	0.498	0.515	0.520	0.526	DIA
ROTOR -L.E.	BETA 2	10.003	9.612	9.422	9.652	10.397	10.644	10.983	11.429	12.190	BETA 2
ROTOR -T.E.	BETA 3	60.515	56.676	53.542	46.644	44.907	45.180	46.139	50.365	53.447	BETA 3
	BETA(PR) 2	44.172	44.763	45.084	46.061	47.562	48.582	51.626	52.425	52.002	BETA(PR) 2
	BETA(PR) 3	-16.425	-10.301	-5.662	4.148	11.765	17.427	21.588	23.300	24.808	BETA(PR) 3
	V 2	162.59	162.46	163.77	166.01	167.42	165.66	160.86	155.17	156.34	V 2
	V 3	254.18	253.91	253.55	252.89	241.54	232.21	220.18	216.30	212.47	V 3
	VZ 2	160.12	160.17	161.55	163.48	164.33	162.14	156.99	154.05	151.10	VZ 2
	VZ 3	124.88	139.25	150.61	173.26	170.92	163.39	143.73	137.64	132.55	VZ 3
	V-THETA 2	28.24	27.13	26.81	27.62	30.15	30.47	30.47	31.14	32.63	V-THETA 2
	V-THETA 3	220.86	211.80	203.85	183.66	170.37	164.42	164.15	166.17	166.62	V-THETA 3
	V(PR) 2	223.2	225.6	228.8	235.8	243.9	250.5	253.5	253.3	252.4	V(PR) 2
	V(PR) 3	131.1	142.3	151.5	173.9	174.9	171.5	155.3	150.6	146.8	V(PR) 3
	VTHETA PR2	-155.6	-158.9	-162.0	-169.8	-179.7	-190.4	-198.3	-200.2	-201.5	VTHETA PR2
	VTHETA PR3	36.8	25.3	14.9	-12.6	-35.6	-51.3	-56.9	-59.3	-61.5	VTHETA PR3
	U 2	183.80	185.98	188.83	197.57	209.88	220.86	228.60	231.36	234.04	U 2
	U 3	184.04	186.49	189.92	196.23	205.97	215.71	223.02	225.45	227.89	U 3
	M 2	0.4891	0.4867	0.4928	0.4999	0.5044	0.4998	0.4836	0.4752	0.4694	M 2
	M 3	0.7427	0.7429	0.7433	0.7440	0.7103	0.6803	0.6408	0.6263	0.6193	M 3
	M(PR) 2	0.6715	0.6786	0.6885	0.7100	0.7343	0.7542	0.7623	0.7608	0.7594	M(PR) 2
	M(PR) 3	0.3831	0.4164	0.4442	0.5121	0.5142	0.5034	0.4517	0.4375	0.4260	M(PR) 3
	TURN(PR)	60.480	55.007	50.738	41.901	35.755	32.091	29.980	29.064	28.142	TURN(PR)
	UUBAR	0.3460	0.2660	0.1905	0.0026	-0.0193	0.0056	0.1062	0.1293	0.1308	UUBAR
	LOSS PARA	0.1069	0.0855	0.0629	0.0009	-0.0069	0.0021	0.0367	0.0460	0.0489	LOSS PARA
	DFAC	0.6909	0.6371	0.5945	0.4907	0.4908	0.5175	0.5985	0.6179	0.6330	DFAC
	EFFP	0.7628	0.8065	0.8587	0.9965	1.0164	0.9964	0.8988	0.8810	0.8771	EFFP
	EFF	0.7522	0.7975	0.8519	0.9963	1.0172	0.9962	0.8942	0.8799	0.8716	EFF
	INCID	-11.478	-9.637	-8.917	-7.774	-6.950	-5.990	-5.204	-5.308	-6.196	INCID
	DEVM	17.592	15.856	14.344	12.145	9.545	7.869	10.186	12.277	15.063	DEVM
	P 2	10.050	10.078	10.106	10.141	10.162	10.141	10.078	10.043	10.018	P 2
	P 3	13.698	13.881	14.050	14.395	14.240	14.099	13.754	13.655	13.594	P 3
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	T 3	323.611	322.778	321.555	318.611	316.833	316.722	318.111	318.222	318.333	T 3
STATOR F	PCT SPAN	95.81	92.01	86.27	69.91	49.21	29.51	14.11	9.31	4.51	PCT SPAN
	DIA	0.423	0.427	0.432	0.448	0.468	0.487	0.502	0.506	0.511	DIA
STATOR-L.E.	BETA 3	60.720	56.137	52.565	45.315	43.492	43.817	47.749	48.984	50.124	BETA 3
STATOR-T.E.	BETA 4	10.178	9.986	9.660	9.265	8.246	8.413	10.043	10.002	9.794	BETA 4
	V 3	253.27	255.19	256.85	258.57	247.67	238.61	225.63	221.50	218.45	V 3
	V 4	174.58	179.77	188.26	204.58	200.39	193.40	186.32	184.89	183.35	V 4
	VZ 3	123.86	142.19	156.11	181.77	179.50	171.83	151.32	144.97	139.65	VZ 3
	VZ 4	171.82	177.03	185.55	201.81	198.08	190.34	182.68	181.14	179.53	VZ 4
	V-THETA 3	220.91	211.90	203.93	183.77	170.29	164.88	166.58	166.67	167.16	V-THETA 3
	V-THETA 4	30.85	31.17	31.58	32.62	28.70	31.55	32.35	31.95	30.99	V-THETA 4
	M 3	0.7397	0.7471	0.7541	0.7636	0.7302	0.7009	0.6578	0.6446	0.6349	M 3
	M 4	0.4959	0.5121	0.5287	0.5614	0.5402	0.5559	0.5359	0.5314	0.5267	M 4
	TURN(PR)	50.542	46.150	42.901	36.035	34.202	34.318	37.588	38.853	40.193	TURN(PR)
	UUBAR	0.0624	0.0672	0.0519	0.0214	0.0414	0.0924	0.0955	0.0867	0.0872	UUBAR
	LOSS PARA	0.0196	0.0214	0.0168	0.0072	0.0147	0.0346	0.0367	0.0337	0.0342	LOSS PARA
	DFAC	0.5511	0.5255	0.4884	0.4097	0.3989	0.4032	0.4106	0.4096	0.4138	DFAC
	EFFP	0.9018	0.8902	0.9085	0.9540	0.9017	0.7732	0.7437	0.7547	0.7461	EFFP
	INCID	-4.280	-3.265	-3.241	-7.004	-9.163	-10.843	-9.913	-9.897	-10.275	INCID
	DEVM	15.428	15.985	15.458	14.010	12.335	13.390	13.999	13.150	12.032	DEVM
	P 3	13.698	13.881	14.050	14.395	14.240	14.099	13.754	13.655	13.594	P 3
	P 4	13.437	13.592	13.821	14.296	14.064	13.733	13.423	13.367	13.317	P 4
	T 3	323.611	322.778	321.555	318.611	316.833	316.722	318.111	318.222	318.333	T 3
	T 4	323.611	322.778	321.555	318.611	316.833	316.722	318.111	318.222	318.333	T 4

7008135

Table B-3. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 83.48 Equivalent Rotor Speed = 8294.66 Equivalent Weight Flow = 14.916 kg/sec
Uniform Inlet
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	95.79	91.71	86.89	70.41	49.21	29.10	13.80	9.00	4.76	PCT SPAN
	DIA	0.425	0.432	0.439	0.464	0.495	0.526	0.549	0.556	0.562	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	12.473	12.150	11.992	12.473	13.790	13.152	14.049	14.855	15.709	BETA 2
	V 1	104.72	105.24	105.54	106.85	107.58	105.06	98.22	94.86	91.49	V 1
	V 2	118.21	119.49	120.65	122.28	122.23	119.96	115.62	113.75	111.95	V 2
	VZ 1	104.72	105.23	105.43	106.81	107.47	104.87	97.98	94.60	91.23	VZ 1
	VZ 2	115.42	116.80	117.99	119.28	118.38	116.20	111.32	109.04	106.75	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	25.53	25.15	25.06	26.38	29.05	27.15	27.86	28.92	30.04	V-THETA 2
	M 1	0.3107	0.3123	0.3132	0.3171	0.3194	0.3117	0.2911	0.2806	0.2708	M 1
	M 2	0.3517	0.3556	0.3591	0.3641	0.3639	0.3570	0.3437	0.3381	0.3326	M 2
	TURN	-12.47	-12.15	-11.99	-12.46	-13.75	-13.08	-13.94	-14.73	-15.58	TURN
	UUBAR	0.0484	0.0531	0.0317	0.0173	0.0152	0.0261	0.0264	0.0131	0.0	UUBAR
	DFAC	-0.031	-0.039	-0.047	-0.043	-0.023	-0.031	-0.053	-0.063	-0.074	DFAC
	EFFP	0.8555	0.8506	0.9102	0.9692	0.9926	0.9228	0.9428	0.9720	0.9666	EFFP
	INCID	5.9000	5.9200	6.2500	6.6600	7.0000	7.3200	7.4200	7.4200	7.4200	INCID
	DEVM	4.527	5.151	5.490	6.336	6.486	6.528	6.759	6.921	7.714	DEVM
	P 1	10.090	10.111	10.118	10.146	10.174	10.164	10.047	10.042	10.027	P 1
	P 2	10.058	10.076	10.097	10.139	10.164	10.146	10.083	10.055	10.027	P 2
	T 1	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 1
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	UUBAR FS										UUBAR FS
	P1 FS										P1 FS
	LOSS PARA FS										LOSS PARA FS
ROTOR F	PCT SPAN	95.01	89.99	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA	0.425	0.430	0.436	0.453	0.473	0.493	0.511	0.520	0.526	DIA
ROTOR -L.E.	BETA 2	9.725	9.640	9.562	9.989	10.978	10.473	11.229	11.878	12.540	BETA 2
ROTOR -T.E.	BETA 3	61.683	58.189	55.299	47.991	46.880	46.870	50.913	52.685	54.030	BETA 3
	BETA(PR) 2	46.708	47.260	47.950	48.338	46.691	45.914	45.965	44.640	43.340	BETA(PR) 2
	BETA(PR) 3	-15.475	-9.629	-5.164	4.091	12.012	18.368	22.114	23.741	25.659	BETA(PR) 3
	V 2	151.60	151.01	151.94	154.74	156.41	154.91	149.51	146.24	143.02	V 2
	V 3	246.69	247.20	246.02	248.64	236.01	226.33	216.96	213.17	209.75	V 3
	VZ 2	149.42	148.88	149.82	152.32	151.22	151.50	144.86	141.17	140.54	VZ 2
	VZ 3	116.81	129.57	140.25	166.74	161.14	154.47	136.51	129.43	122.91	VZ 3
	V-THETA 2	25.61	25.29	25.24	26.83	29.72	28.01	28.99	30.11	31.27	V-THETA 2
	V-THETA 3	216.80	208.89	202.02	184.74	172.13	164.90	169.01	169.42	170.26	V-THETA 3
	V(PR) 2	217.9	219.4	222.1	229.2	233.1	244.0	248.4	248.0	247.1	V(PR) 2
	V(PR) 3	122.1	132.2	141.0	167.3	165.3	163.3	166.0	162.3	157.1	V(PR) 3
	VTHETA PR2	-158.6	-161.1	-164.0	-171.2	-180.6	-193.4	-200.4	-201.8	-203.2	VTHETA PR2
	VTHETA PR3	32.3	22.0	12.7	-11.9	-34.0	-51.3	-55.1	-57.2	-56.0	VTHETA PR3
	U 2	184.21	186.40	189.25	198.01	210.31	221.36	229.21	231.88	234.64	U 2
	U 3	184.46	186.91	189.34	198.17	206.43	216.19	223.52	225.46	226.81	U 3
	M 2	0.4466	0.4528	0.4557	0.4644	0.4698	0.4663	0.4487	0.4410	0.4341	M 2
	M 3	0.7187	0.7180	0.7187	0.7314	0.6917	0.6609	0.6251	0.6171	0.6084	M 3
	M(PR) 2	0.6534	0.6577	0.6662	0.6834	0.7119	0.7584	0.7443	0.7427	0.7418	M(PR) 2
	M(PR) 3	0.3556	0.3854	0.4118	0.4911	0.4838	0.4747	0.4854	0.4823	0.4765	M(PR) 3
	TURN(PR)	62.072	56.836	52.747	44.235	37.638	33.461	31.770	30.745	29.629	TURN(PR)
	UUBAR	0.1749	0.2070	0.2130	-0.0001	-0.0005	0.0263	0.1160	0.1264	0.1452	UUBAR
	LOSS PARA	0.1133	0.0624	0.0704	-0.0019	-0.0031	0.0101	0.0469	0.0481	0.0731	LOSS PARA
	DFAC	0.7227	0.6715	0.6764	0.5078	0.5712	0.6480	0.6165	0.6450	0.6714	DFAC
	EFFP	0.7561	0.7582	0.7666	1.0020	1.0001	0.9727	0.9561	0.9448	0.9731	EFFP
	EFF	0.7473	0.7589	0.8364	1.0021	1.0001	0.9716	0.8554	0.8765	0.8814	EFF
	INCID	-8.442	-7.140	-6.411	-4.467	-4.816	-3.641	-2.840	-2.659	-2.553	INCID
	DEVM	16.526	16.524	14.842	12.088	9.789	8.408	10.306	12.816	14.908	DEVM
	P 2	10.058	10.076	10.097	10.139	10.164	10.146	10.083	10.055	10.027	P 2
	P 3	13.691	13.832	13.994	14.499	14.261	14.113	13.868	13.793	13.720	P 3
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	T 3	323.500	322.778	321.722	319.111	317.444	317.500	319.000	319.167	319.278	T 3
STATOR F	PCT SPAN	94.81	90.61	86.21	69.91	49.21	29.41	14.11	9.31	4.91	PCT SPAN
	DIA	0.423	0.427	0.432	0.448	0.468	0.487	0.502	0.508	0.511	DIA
STATOR-L.E.	BETA 3	61.683	57.666	54.294	46.934	45.665	45.501	49.474	51.064	52.572	BETA 3
STATOR-T.E.	BETA 4	12.818	12.353	11.629	10.370	10.134	10.332	10.384	10.270	10.174	BETA 4
	V 3	245.66	247.35	248.57	254.17	241.68	232.29	222.20	218.16	214.43	V 3
	V 4	158.60	162.98	170.22	185.12	182.70	177.30	171.10	169.70	169.11	V 4
	VZ 3	115.86	129.29	146.36	174.41	169.40	162.50	144.04	139.56	136.62	VZ 3
	VZ 4	154.64	159.19	166.70	182.47	179.62	174.43	168.28	166.17	165.69	VZ 4
	V-THETA 3	216.85	209.99	202.10	184.55	172.05	165.54	169.44	169.22	169.90	V-THETA 3
	V-THETA 4	35.18	34.86	34.29	34.65	32.11	31.76	30.39	30.11	29.59	V-THETA 4
	M 3	0.7160	0.7217	0.7282	0.7468	0.7099	0.6797	0.6465	0.6352	0.6237	M 3
	M 4	0.4488	0.4621	0.4844	0.5334	0.5255	0.5105	0.4913	0.4849	0.4770	M 4
	TURN(PR)	49.068	45.312	42.665	36.816	35.269	35.064	38.907	40.857	42.265	TURN(PR)
	UUBAR	0.0337	0.0495	0.0588	0.0560	0.0421	0.0692	0.0827	0.0758	0.0728	UUBAR
	LOSS PARA	0.0105	0.0137	0.0129	0.0118	0.0133	0.0217	0.0231	0.0204	0.0182	LOSS PARA
	DFAC	0.5916	0.5697	0.5386	0.4732	0.4648	0.4550	0.4731	0.4912	0.4984	DFAC
	EFFP	0.9518	0.9363	0.9096	0.9019	0.9163	0.8988	0.8772	0.8836	0.8888	EFFP
	INCID	-3.115	-1.737	-1.533	-1.736	-3.530	-4.160	-4.187	-3.863	-3.822	INCID
	DEVM	18.067	18.351	17.422	15.446	14.222	14.296	14.911	15.416	15.665	DEVM
	P 3	13.671	13.832	13.994	14.499	14.261	14.113	13.868	13.793	13.720	P 3
	P 4	13.537	13.697	13.832	14.247	14.085	13.853	13.608	13.527	13.460	P 4
	T 3	323.500	322.778	321.722	319.111	317.444	317.500	319.000	319.167	319.278	T 3
	T 4	323.500	322.778	321.722	319.111	317.444	317.500	319.000	319.167	319.278	T 4

Table B-3. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 83.51 Equivalent Rotor Speed = 8297.36 Equivalent Weight Flow = 13.947 kg/sec
Uniform Inlet
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	95.79	91.71	86.89	70.41	49.21	29.10	13.80	9.00	4.70	PCT SPAN
	DIA	0.425	0.434	0.439	0.464	0.495	0.526	0.549	0.556	0.562	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	12.516	12.024	11.665	12.138	12.984	13.309	13.758	14.737	15.884	BETA 2
	V 1	98.02	98.06	98.45	99.84	99.64	98.14	89.53	86.76	85.09	V 1
	V 2	107.69	110.85	111.66	112.85	112.94	111.41	106.51	105.01	103.50	V 2
	VZ 1	98.02	98.06	98.44	99.81	99.54	99.96	89.30	86.52	84.84	VZ 1
	VZ 2	107.06	108.39	109.36	110.22	109.75	107.85	102.68	100.72	98.65	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	23.77	23.71	23.46	23.70	25.31	25.51	25.14	26.49	28.07	V-THETA 2
	M 1	0.2905	0.2908	0.2918	0.2960	0.2953	0.2848	0.2649	0.2566	0.2516	M 1
	M 2	0.3257	0.3292	0.3317	0.3353	0.3356	0.3309	0.3161	0.3116	0.3070	M 2
	TURN	-12.52	-12.09	-11.60	-12.13	-12.95	-13.24	-13.65	-14.61	-15.74	TURN
	UUBAR	0.0488	0.0487	0.0502	0.0352	0.0235	0.0	0.0219	0.0156	0.0324	UUBAR
	DFAC	-0.021	-0.035	-0.042	-0.033	-0.027	-0.046	-0.067	-0.074	-0.066	DFAC
	EFFP	0.9427	0.8556	0.8914	0.8915	0.9265	0.9999	0.9514	0.9686	0.9384	EFFP
	INCID	5.4000	5.4200	5.4700	6.2500	6.6600	7.0000	7.3200	7.4200	7.4200	INCID
	DEVM	4.484	5.247	6.077	6.675	7.293	8.372	9.048	8.438	7.543	DEVM
	P 1	10.105	10.119	10.126	10.154	10.168	10.147	10.088	10.063	10.049	P 1
	P 2	10.077	10.091	10.105	10.133	10.154	10.147	10.077	10.056	10.035	P 2
	T 1	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 1
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	UUBAR FS										UUBAR FS
	P1 FS										P1 FS
	LOSS PARA FS										LOSS PARA FS
ROTOR F	PCT SPAN	95.01	89.99	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA	0.425	0.430	0.436	0.453	0.475	0.498	0.515	0.520	0.526	DIA
ROTOR -L.E.	BETA 2	9.817	9.628	9.319	9.796	10.423	10.676	11.077	11.868	12.765	BETA 2
ROTOR -T.E.	BETA 3	61.774	58.959	56.400	49.693	47.807	46.339	53.192	55.559	58.102	BETA 3
	BETA(PR) 2	49.371	49.943	50.418	51.256	52.668	54.421	56.713	57.288	57.877	BETA(PR) 2
	BETA(PR) 3	-15.787	-10.514	-6.176	4.711	12.111	18.316	22.352	24.248	26.831	BETA(PR) 3
	V 2	139.70	139.17	139.67	141.74	143.39	142.63	136.78	134.99	133.18	V 2
	V 3	247.31	246.04	245.09	241.20	233.51	223.96	213.96	209.79	205.07	V 3
	VZ 2	137.65	137.21	137.82	139.60	140.73	139.58	133.45	131.27	129.01	VZ 2
	VZ 3	116.77	120.69	135.59	155.96	156.71	148.64	127.95	118.43	108.16	VZ 3
	V-THETA 2	23.84	23.68	22.62	24.10	25.89	26.31	26.13	27.58	29.23	V-THETA 2
	V-THETA 3	217.53	210.46	204.08	183.88	172.87	167.06	170.98	172.69	173.77	V-THETA 3
	V(PR) 2	211.4	213.2	216.3	223.1	232.3	240.3	243.6	243.4	243.1	V(PR) 2
	V(PR) 3	122.2	149.6	136.5	156.6	160.5	157.1	139.0	130.5	121.9	V(PR) 3
	VTHETA PR2	-160.4	-163.2	-166.7	-174.0	-184.5	-195.1	-203.3	-204.4	-205.5	VTHETA PR2
	VTHETA PR3	33.0	23.5	14.7	-12.9	-33.6	-49.2	-52.6	-53.3	-54.7	VTHETA PR3
	U 2	184.27	186.46	189.32	198.08	210.42	221.43	229.38	231.96	234.69	U 2
	U 3	184.54	186.97	189.40	196.73	206.50	216.26	223.59	226.03	228.48	U 3
	M 2	0.4176	0.4160	0.4175	0.4239	0.4291	0.4267	0.4086	0.4031	0.3975	M 2
	M 3	0.7202	0.7167	0.7148	0.7059	0.6826	0.6523	0.6189	0.6055	0.5907	M 3
	M(PR) 2	0.6319	0.6373	0.6466	0.6673	0.6950	0.7188	0.7277	0.7267	0.7256	M(PR) 2
	M(PR) 3	0.3558	0.3774	0.3981	0.4584	0.4693	0.4575	0.4020	0.3767	0.3510	M(PR) 3
	TURN(PR)	65.045	60.249	56.596	46.534	40.519	36.048	34.307	32.994	31.014	TURN(PR)
	UUBAR	0.3599	0.2943	0.2323	0.0589	0.0174	0.0476	0.1486	0.1798	0.2078	UUBAR
	LOSS PARA	0.1116	0.0946	0.0760	0.0203	0.0062	0.0175	0.0552	0.0666	0.0762	LOSS PARA
	DFAC	0.7175	0.6797	0.6671	0.5452	0.5380	0.5692	0.6642	0.7017	0.7387	DFAC
	EFFP	0.7742	0.8087	0.8477	0.9567	0.9842	0.9594	0.8784	0.8523	0.8293	EFFP
	EFF	0.7690	0.7996	0.8404	0.9545	0.9834	0.9574	0.8727	0.8455	0.8216	EFF
	INCID	-0.279	-0.457	-0.584	-2.579	-1.841	-1.146	-0.117	-0.435	-1.309	INCID
	DEVM	18.226	15.644	12.630	12.707	9.891	8.756	10.947	13.221	17.077	DEVM
	P 2	10.077	10.091	10.105	10.133	10.154	10.147	10.077	10.056	10.035	P 2
	P 3	13.660	13.986	14.112	14.309	14.309	14.175	13.930	13.824	13.705	P 3
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	T 3	323.889	323.389	322.500	319.444	318.333	318.333	320.167	320.611	320.833	T 3
STATOR F	PCT SPAN	95.81	92.01	88.21	69.91	49.21	29.51	14.11	9.31	4.51	PCT SPAN
	DIA	0.423	0.427	0.432	0.448	0.468	0.487	0.502	0.506	0.511	DIA
STATOR-L.E.	BETA 3	61.479	58.424	55.416	48.375	46.362	46.942	51.673	53.985	56.470	BETA 3
STATOR-T.E.	BETA 4	14.677	13.641	12.338	10.849	10.491	11.111	10.336	9.873	9.471	BETA 4
	V 3	246.48	247.18	248.00	240.21	238.97	229.69	219.00	214.61	209.58	V 3
	V 4	143.89	148.55	156.19	169.44	167.69	162.78	157.58	155.42	152.82	V 4
	VZ 3	115.79	129.43	140.76	163.50	164.76	156.54	135.52	125.91	115.52	VZ 3
	VZ 4	139.19	144.16	152.26	166.33	164.69	159.35	154.36	152.33	149.78	VZ 4
	V-THETA 3	217.58	210.58	204.16	183.99	172.79	167.52	171.43	173.20	174.33	V-THETA 3
	V-THETA 4	36.46	35.79	34.70	31.88	30.90	31.29	28.15	26.51	24.99	V-THETA 4
	M 3	0.7175	0.7204	0.7241	0.7221	0.7001	0.6704	0.6347	0.6205	0.6046	M 3
	M 4	0.4053	0.4193	0.4423	0.4839	0.4795	0.4649	0.4481	0.4414	0.4335	M 4
	TURN(PR)	47.302	44.482	42.574	37.513	35.828	35.748	41.223	43.990	46.873	TURN(PR)
	UUBAR	0.0663	0.0687	0.0565	0.0267	0.0545	0.0761	0.0700	0.0610	0.0480	UUBAR
	LOSS PARA	0.0205	0.0215	0.0181	0.0090	0.0193	0.0282	0.0269	0.0237	0.0189	LOSS PARA
	DFAC	0.6516	0.6287	0.5956	0.5245	0.5150	0.5181	0.5401	0.5500	0.5597	DFAC
	EFFP	0.9155	0.9098	0.9218	0.9579	0.9099	0.8695	0.8743	0.8883	0.9105	EFFP
	INCID	-3.021	-0.479	-0.391	-3.944	-6.293	-7.718	-5.985	-4.888	-3.916	INCID
	DEVM	19.926	19.940	18.036	15.594	14.579	15.084	14.292	13.022	11.710	DEVM
	P 3	13.860	13.986	14.112	14.309	14.309	14.175	13.930	13.824	13.705	P 3
	P 4	13.593	13.705	13.877	14.196	14.091	13.895	13.698	13.631	13.561	P 4
	T 3	323.889	323.389	322.500	319.444	318.333	318.333	320.167	320.611	320.833	T 3
	T 4	323.889	323.389	322.500	319.444	318.333	318.333	320.167	320.611	320.833	T 4

Table B-3. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 83.26 Equivalent Rotor Speed = 8272.47 Equivalent Weight Flow = 13.009 kg/sec
Uniform Inlet
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	95.79	91.71	86.69	70.41	49.21	29.10	13.80	9.00	4.70	PCT SPAN
	DIA	0.425	0.432	0.439	0.464	0.495	0.526	0.549	0.556	0.562	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	12.131	11.725	11.621	12.292	12.942	12.981	13.271	13.881	14.669	BETA 2
	V 1	90.14	89.91	90.41	91.75	92.60	89.65	85.32	83.06	81.34	V 1
	V 2	101.74	102.48	103.45	105.27	105.33	102.78	99.18	97.87	96.73	V 2
	VZ 1	90.14	89.91	90.40	91.71	92.60	89.49	85.11	82.83	81.10	VZ 1
	VZ 2	99.47	100.33	101.31	102.76	102.37	99.63	95.81	94.22	92.72	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	21.38	20.82	20.83	22.39	23.53	22.97	22.60	23.28	24.27	V-THETA 2
	M 1	0.2668	0.2661	0.2676	0.2716	0.2744	0.2653	0.2523	0.2455	0.2404	M 1
	M 2	0.3017	0.3039	0.3068	0.3124	0.3125	0.3048	0.2940	0.2900	0.2866	M 2
	TURN	-12.13	-11.72	-11.62	-12.28	-12.91	-12.91	-13.17	-13.76	-14.53	TURN
	UUBAR	0.0430	0.0432	0.0285	0.0	0.0068	0.0144	0.0399	0.0338	0.0352	UUBAR
	DFAC	-0.033	-0.046	-0.051	-0.048	-0.030	-0.037	-0.047	-0.053	-0.054	DFAC
	EFFP	0.8680	0.8773	0.9182	1.0000	0.9781	0.9574	0.9004	0.9221	0.9234	EFFP
	INCID	5.4000	5.9200	5.9700	6.2500	6.6600	7.0000	7.3200	7.4200	7.4200	INCID
	DEVM	4.869	5.576	6.062	6.520	7.334	8.698	9.531	9.287	8.748	DEVM
	P 1	10.108	10.115	10.122	10.143	10.163	10.143	10.108	10.087	10.073	P 1
	P 2	10.087	10.094	10.108	10.143	10.160	10.136	10.090	10.073	10.059	P 2
	T 1	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 1
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	UUBAR FS										UUBAR FS
	P1 FS										P1 FS
	LOSS PARA FS										LOSS PARA FS
ROTOR F	PCT SPAN	95.01	89.96	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA	0.425	0.430	0.436	0.453	0.475	0.498	0.515	0.520	0.526	DIA
ROTOR -L.E.	BETA 2	9.580	9.418	9.381	9.871	10.448	10.482	10.744	11.239	11.851	BETA 2
ROTOR -T.E.	BETA 3	64.165	61.460	59.104	51.467	49.761	*0.770	55.247	57.892	60.228	BETA 3
	BETA(PR) 2	51.939	52.576	52.879	53.455	*4.901	56.988	58.906	59.489	60.017	BETA(PR) 2
	BETA(PR) 3	-17.656	-12.491	-6.272	3.871	12.458	19.471	22.620	23.785	25.140	BETA(PR) 3
	V 2	128.86	127.96	126.71	131.55	133.00	130.76	126.71	125.18	123.89	V 2
	V 3	241.68	241.57	241.10	237.98	227.39	216.31	210.83	208.76	207.24	V 3
	VZ 2	127.06	126.23	126.98	129.50	130.52	128.04	123.76	122.00	120.42	VZ 2
	VZ 3	105.30	115.26	123.76	148.22	146.76	136.61	119.98	110.77	102.73	VZ 3
	V-THETA 2	21.44	20.94	20.98	22.77	24.07	23.69	23.48	24.24	25.27	V-THETA 2
	V-THETA 3	217.48	211.94	206.83	166.11	173.45	167.32	172.93	176.43	179.58	V-THETA 3
	V(PR) 2	206.1	207.7	210.4	217.5	227.2	235.3	240.0	240.7	241.4	V(PR) 2
	V(PR) 3	111.3	118.7	125.2	148.7	150.4	144.3	130.6	121.7	114.1	V(PR) 3
	VTHETA PR2	-162.3	-165.0	-167.8	-174.7	-185.7	-197.1	-205.2	-207.0	-208.7	VTHETA PR2
	VTHETA PR3	33.5	25.5	18.0	-10.0	-32.4	-48.3	-50.0	-48.8	-48.2	VTHETA PR3
	U 2	183.72	184.90	186.76	197.48	206.78	220.76	228.70	231.26	233.99	U 2
	U 3	183.96	186.40	188.84	196.14	205.89	215.62	222.42	225.3[illegible]	227.79	U 3
	M 2	0.5842	0.5814	0.5838	0.5985	0.6140	0.6300	0.6476	0.6729	0.6940	M 2
	M 3	0.7026	0.7019	0.7011	0.6968	0.6826	0.6674	0.6482	0.6310	0.5965	M 3
	M(PR) 2	0.4145	0.4192	0.4274	0.4460	0.4780	0.5020	0.5154	0.5171	0.5150	M(PR) 2
	M(PR) 3	0.3231	0.3448	0.3640	0.4340	0.4381	0.4217	0.3967	0.3802	0.3674	M(PR) 3
	TURN(PR)	69.471	64.898	61.141	49.583	42.405	37.469	36.238	34.662	34.548	TURN(PR)
	UUBAR	0.3856	0.3204	0.2580	0.0616	0.0379	0.0806	0.1616	0.1967	0.2205	UUBAR
	LOSS PARA	0.1183	0.1022	0.0847	0.0213	0.0178	0.0284	0.0556	0.0751	0.0822	LOSS PARA
	DFAC	0.7668	0.7295	0.6980	0.6295	0.6355	0.6147	0.7019	0.7473	0.7815	DFAC
	EFFP	0.7746	0.8084	0.8423	0.9448	0.9612	0.9342	0.8743	0.8532	0.8388	EFFP
	EFF	0.7642	0.7993	0.8346	0.9425	0.9468	0.9310	0.8685	0.8462	0.8282	EFF
	INCID	-3.711	-1.824	-1.123	-0.379	0.393	1.429	2.082	1.773	0.834	INCID
	DEVM	16.368	13.678	11.737	11.868	10.237	9.908	11.214	12.760	14.383	DEVM
	P 2	10.087	10.094	10.108	10.143	10.160	10.136	10.090	10.073	10.059	P 2
	P 3	13.892	14.042	14.176	14.416	14.304	14.116	14.053	14.024	14.018	P 3
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	T 3	324.278	323.833	323.222	320.139	318.778	317.889	321.111	321.444	322.778	T 3
STATOR F	PCT SPAN	94.81	92.01	86.21	69.91	49.21	29.11	14.11	9.31	4.51	PCT SPAN
	DIA	0.423	0.427	0.432	0.448	0.468	0.487	0.502	0.508	0.511	DIA
STATOR-L.E.	BETA 3	64.404	60.915	58.061	*0.111	44.284	44.341	43.652	46.194	48.441	BETA 3
STATOR-T.E.	BETA 4	15.508	14.622	13.788	12.948	11.812	11.492	10.833	10.364	9.927	BETA 4
	V 3	241.20	242.64	243.84	242.76	232.45	221.53	214.70	213.50	211.84	V 3
	V 4	130.59	134.48	140.32	162.30	161.20	156.23	155.66	155.91	156.22	V 4
	VZ 3	104.20	117.44	128.49	155.45	154.55	144.11	127.59	118.55	110.66	VZ 3
	VZ 4	124.85	137.04	141.11	158.09	157.60	152.83	152.24	152.58	152.91	VZ 4
	V-THETA 3	217.53	212.04	206.91	166.23	173.27	167.78	173.36	177.06	180.16	V-THETA 3
	V-THETA 4	34.91	34.47	34.63	36.36	32.69	31.07	29.13	29.90	26.76	V-THETA 4
	M 3	0.7002	0.7053	0.7099	0.7102	0.6787	0.6440	0.6234	0.6157	0.6097	M 3
	M 4	0.3667	0.3830	0.4066	0.4620	0.4656	0.4452	0.4417	0.4418	0.4421	M 4
	TURN(PR)	48.896	46.293	44.269	37.351	36.438	32.768	42.710	45.717	48.347	TURN(PR)
	UUBAR	0.1100	0.1137	0.1002	0.0612	0.0571	0.0611	0.0691	0.0841	0.0830	UUBAR
	LOSS PARA	0.0339	0.0356	0.0319	0.0204	0.0201	0.0226	0.0265	0.0246	0.0247	LOSS PARA
	DFAC	0.7011	0.6782	0.6571	0.5441	0.5264	0.5304	0.6498	0.6501	0.6562	DFAC
	EFFP	0.8670	0.8882	0.8983	0.9093	0.9066	0.8961	0.8745	0.8805	0.8795	EFFP
	INCID	-0.596	1.513	2.255	-2.207	-4.371	-5.317	-4.003	-1.673	-1.440	INCID
	DEVM	20.757	20.630	19.466	17.662	15.896	15.464	14.787	13.510	12.163	DEVM
	P 3	13.892	14.042	14.176	14.416	14.304	14.116	14.053	14.025	14.018	P 3
	P 4	15.465	15.591	15.773	16.167	16.088	15.908	15.829	15.827	15.822	P 4
	T 3	324.278	323.833	323.222	320.139	318.778	317.889	321.111	321.444	322.778	T 3
	T 4	324.278	323.833	323.222	320.139	318.778	317.889	321.111	321.444	322.778	T 4

ORIGINAL PAGE IS
OF POOR QUALITY

Table B-3. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 83.45 Equivalent Rotor Speed = 8291.66 Equivalent Weight Flow = 12.609 kg/sec
Uniform Inlet
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	95.79	91.71	86.89	70.41	49.21	29.10	13.80	4.00	0.70	PCT SPAN
	DIA	0.425	0.432	0.439	0.464	0.488	0.506	0.519	0.524	0.526	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	12.270	11.835	11.561	11.857	12.676	13.016	13.760	14.544	15.256	BETA 2
	V 1	88.39	88.19	88.70	89.86	90.02	87.38	82.78	78.26	76.49	V 1
	V 2	95.67	96.35	100.78	102.14	101.97	98.62	96.11	94.65	93.15	V 2
	VZ 1	88.39	88.19	88.69	89.83	89.99	87.22	82.57	80.19	77.41	VZ 1
	VZ 2	93.48	93.23	98.24	98.66	98.21	96.55	92.65	91.15	88.71	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	20.33	20.34	20.10	20.47	22.31	22.02	22.69	23.84	24.69	V-THETA 2
	M 1	0.2615	0.2609	0.2624	0.2659	0.2664	0.2587	0.2447	0.2316	0.2263	M 1
	M 2	0.2834	0.2945	0.2973	0.3029	0.3024	0.2919	0.2847	0.2812	0.2778	M 2
	TURN	-12.27	-11.81	-11.56	-11.85	-12.64	-12.96	-13.61	-14.42	-15.06	TURN
	UUBAR	0.1337	0.0447	0.0295	0.0	0.0	0.0151	0.0338	0.0174	0.0194	UUBAR
	DFAC	0.010	-0.035	-0.039	-0.041	-0.029	-0.031	-0.042	-0.050	-0.052	DFAC
	EFFP	0.5687	0.6611	0.9070	0.9999	1.0000	0.9932	0.9197	0.8535	0.8517	EFFP
	INCID	5.6000	5.9200	5.9700	6.2500	6.6000	7.0000	7.3200	7.4200	7.4200	INCID
	DEVM	4.731	5.486	6.121	6.555	7.600	8.668	9.456	9.850	9.855	DEVM
	P 1	10.109	10.116	10.123	10.144	10.158	10.144	10.106	10.086	10.074	P 1
	P 2	10.047	10.095	10.109	10.144	10.158	10.137	10.095	10.081	10.067	P 2
	T 1	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 1
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	UUBAR FS										UUBAR FS
	P1 FS										P1 FS
	LOSS PARA FS										LOSS PARA FS
ROTOR F	PCT SPAN	95.01	89.99	85.00	70.00	50.00	30.00	14.00	10.01	4.99	PCT SPAN
	DIA	0.425	0.430	0.436	0.453	0.475	0.495	0.510	0.520	0.526	DIA
ROTOR -L.E.	BETA 2	9.726	9.508	9.351	9.939	10.357	10.652	11.161	11.766	12.329	BETA 2
ROTOR -T.E.	BETA 3	64.284	61.725	59.465	51.343	50.740	52.007	57.070	59.604	61.645	BETA 3
	BETA(PR) 2	54.003	53.639	53.068	54.599	56.055	58.019	63.189	64.193	65.655	BETA(PR) 2
	BETA(PR) 3	-16.753	-11.860	-7.681	4.574	12.686	16.670	23.189	24.193	25.655	BETA(PR) 3
	V 2	120.70	123.82	124.56	127.36	128.47	126.47	122.54	121.21	119.96	V 2
	V 3	239.70	239.47	238.67	237.71	235.25	234.92	234.71	237.57	238.38	V 3
	VZ 2	118.96	122.12	122.86	125.42	126.16	123.82	119.42	117.40	114.25	VZ 2
	VZ 3	103.86	113.29	121.23	148.15	162.44	182.12	213.25	224.44	237.44	VZ 3
	V-THETA 2	20.39	20.45	20.24	21.92	22.83	23.02	23.58	24.69	25.44	V-THETA 2
	V-THETA 3	215.65	210.63	205.52	185.76	174.29	169.15	174.91	171.76	161.11	V-THETA 3
	V(PR) 2	202.4	206.0	208.9	216.7	226.1	234.0	238.2	238.1	239.9	V(PR) 2
	V(PR) 3	109.2	116.4	122.4	148.7	166.3	140.7	123.8	115.5	105.1	V(PR) 3
	VTHETA PR2	-163.8	-165.9	-169.0	-178.6	-187.4	-198.2	-205.6	-207.2	-209.1	VTHETA PR2
	VTHETA PR3	31.3	23.8	16.2	-11.3	-32.1	-47.0	-46.5	-47.1	-47.0	VTHETA PR3
	U 2	184.15	186.33	189.10	197.94	210.27	221.29	224.25	221.87	220.22	U 2
	U 3	184.39	186.84	189.27	196.60	206.36	216.12	223.44	225.27	226.76	U 3
	M 2	0.3592	0.3688	0.3710	0.3797	0.3830	0.3769	0.3648	0.3608	0.3578	M 2
	M 3	0.6955	0.6982	0.6933	0.6924	0.6853	0.6827	0.6912	0.6965	0.6973	M 3
	M(PR) 2	0.6024	0.6135	0.6229	0.6460	0.6741	0.6974	0.7053	0.7107	0.7132	M(PR) 2
	M(PR) 3	0.3169	0.3379	0.3557	0.4340	0.4768	0.4075	0.3566	0.3362	0.3156	M(PR) 3
	TURN(PR)	70.638	68.433	61.590	50.274	43.338	38.396	36.603	34.126	34.219	TURN(PR)
	UUBAR	0.3850	0.3273	0.2683	0.0610	0.0668	0.1047	0.1874	0.2158	0.2346	UUBAR
	LOSS PARA	0.1187	0.1047	0.0882	0.0211	0.0238	0.0381	0.0692	0.0800	0.0870	LOSS PARA
	DFAC	0.7714	0.7371	0.7081	0.6748	0.6660	0.6368	0.7312	0.7740	0.8073	DFAC
	EFFP	0.7835	0.8066	0.8374	0.9867	0.9475	0.9181	0.8572	0.8423	0.8242	EFFP
	EFF	0.7734	0.7974	0.8295	0.9835	0.9446	0.9146	0.8504	0.8347	0.8210	EFF
	INCID	-1.647	-0.761	-0.033	0.765	1.551	2.452	3.014	2.642	1.722	INCID
	DEVM	17.266	14.306	12.377	12.371	10.468	10.007	11.781	13.166	15.965	DEVM
	P 2	10.047	10.095	10.109	10.144	10.158	10.137	10.095	10.081	10.067	P 2
	P 3	13.874	14.028	14.153	14.453	14.272	14.118	14.034	14.041	14.048	P 3
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	T 3	324.167	323.778	323.222	320.333	319.278	319.444	321.611	322.444	323.222	T 3
STATOR F	PCT SPAN	95.81	92.01	86.21	69.91	49.21	29.51	14.11	4.31	4.41	PCT SPAN
	DIA	0.423	0.427	0.432	0.448	0.468	0.487	0.502	0.508	0.511	DIA
STATOR-L.E.	BETA 3	64.518	61.184	58.431	50.003	49.250	50.533	55.392	57.811	59.770	BETA 3
STATOR-T.E.	BETA 4	12.602	12.399	12.098	11.688	11.581	11.419	10.372	9.676	8.845	BETA 4
	V 3	238.95	240.51	241.33	242.05	230.14	220.05	213.46	212.25	210.41	V 3
	V 4	122.99	129.00	138.36	156.42	156.75	153.51	151.48	152.58	153.70	V 4
	VZ 3	102.80	115.42	126.33	155.54	150.10	139.66	121.01	112.66	108.00	VZ 3
	VZ 4	120.02	125.97	135.26	153.09	153.38	150.11	148.37	149.63	150.91	VZ 4
	V-THETA 3	215.71	210.73	205.60	185.38	174.20	169.62	174.37	176.30	181.90	V-THETA 3
	V-THETA 4	26.83	27.70	28.99	31.67	31.43	30.32	27.16	25.51	23.51	V-THETA 4
	M 3	0.6931	0.6986	0.7018	0.7076	0.6708	0.6387	0.6159	0.6113	0.6064	M 3
	M 4	0.3448	0.3623	0.3897	0.4445	0.4462	0.4365	0.4290	0.4317	0.4345	M 4
	TURN(PR)	51.916	48.784	46.329	38.301	37.628	38.034	44.917	48.021	50.744	TURN(PR)
	UUBAR	0.1299	0.1358	0.1195	0.0917	0.0619	0.0817	0.0726	0.0713	0.0677	UUBAR
	LOSS PARA	0.0405	0.0429	0.0383	0.0307	0.0218	0.0229	0.0274	0.0277	0.0267	LOSS PARA
	DFAC	0.7385	0.7108	0.6680	0.5724	0.5447	0.5445	0.5659	0.5717	0.5756	DFAC
	EFFP	0.8479	0.8363	0.8480	0.8670	0.9015	0.8961	0.8723	0.8710	0.8736	EFFP
	INCID	-0.482	1.782	2.624	-2.316	-3.404	-4.125	-2.260	-1.053	-0.667	INCID
	DEVM	17.852	18.398	17.895	16.432	15.668	15.392	14.328	12.826	11.048	DEVM
	P 3	13.874	14.028	14.153	14.453	14.272	14.118	14.034	14.041	14.048	P 3
	P 4	13.379	13.498	13.679	14.076	14.041	13.904	13.804	13.816	13.834	P 4
	T 3	324.167	323.778	323.222	320.333	319.278	319.444	321.611	322.444	323.222	T 3
	T 4	324.167	323.778	323.222	320.333	319.278	319.444	321.611	322.444	323.222	T 4

Table B-3. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 67.88 Equivalent Rotor Speed = 6744.53 Equivalent Weight Flow = 14.614 kg/sec
Uniform Inlet
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	95.79	91.71	86.89	70.41	49.21	29.10	13.80	9.00	4.70	PCT SPAN
	DIA	0.425	0.432	0.439	0.464	0.495	0.526	0.549	0.556	0.562	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	12.217	11.941	11.782	12.238	12.970	13.445	13.812	14.366	14.926	BETA 2
	V 1	103.00	102.95	103.26	104.26	104.76	102.63	95.76	92.24	89.59	V 1
	V 2	115.66	117.51	118.34	118.93	119.18	116.78	113.17	110.89	109.03	V 2
	VZ 1	103.00	102.94	103.25	104.23	104.65	102.44	95.52	91.96	89.33	VZ 1
	VZ 2	113.04	114.96	115.82	116.12	115.81	112.98	109.07	106.53	104.39	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	24.48	24.31	24.16	25.19	26.67	27.01	26.81	27.28	27.83	V-THETA 2
	M 1	0.3055	0.3053	0.3063	0.3092	0.3108	0.3044	0.2837	0.2731	0.2651	M 1
	M 2	0.3439	0.3495	0.3520	0.3539	0.3546	0.3473	0.3363	0.3294	0.3237	M 2
	TURN	-12.22	-11.94	-11.78	-12.23	-12.93	-13.27	-12.71	-14.24	-14.79	TURN
	UUBAR	0.0445	0.0222	0.0110	0.0216	0.0214	0.0556	0.0384	0.0415	0.0514	UUBAR
	DFAC	-0.027	-0.046	-0.051	-0.042	-0.031	-0.026	-0.060	-0.071	-0.076	DFAC
	EFFP	0.8595	0.9342	0.9677	0.9357	0.9351	0.8468	0.9146	0.9174	0.9064	EFFP
	INCID	5.9000	5.9200	5.9700	6.2500	6.6600	7.0000	7.3200	7.4200	7.4200	INCID
	DEVM	4.783	5.361	5.901	6.574	7.307	8.236	8.994	9.805	10.463	DEVM
	P 1	10.090	10.105	10.112	10.140	10.168	10.168	10.105	10.069	10.045	P 1
	P 2	10.062	10.090	10.105	10.126	10.154	10.133	10.083	10.048	10.020	P 2
	T 1	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 1
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	UUBAR FS										UUBAR FS
	P1 FS										P1 FS
	LOSS PARA FS										LOSS PARA FS
ROTOR F	PCT SPAN	95.01	89.99	85.00	70.00	50.00	30.00	15.00	10.01	5.01	PCT SPAN
	DIA	0.425	0.430	0.436	0.453	0.473	0.492	0.514	0.520	0.526	DIA
ROTOR -L.E.	BETA 2	9.548	9.491	9.414	9.891	10.365	10.737	11.061	11.518	11.949	BETA 2
ROTOR -T.E.	BETA 3	56.991	52.951	49.498	40.731	39.644	39.654	41.856	43.356	44.447	BETA 3
	BETA(PR) 2	40.634	41.000	41.444	42.493	43.416	45.996	48.048	48.958	49.766	BETA(PR) 2
	BETA(PR) 3	-13.124	-8.774	-5.334	-4.658	11.468	16.025	20.273	22.329	24.891	BETA(PR) 3
	V 2	147.99	148.26	148.74	150.09	152.08	150.17	146.10	143.10	140.84	V 2
	V 3	211.25	215.97	220.12	223.81	211.55	205.00	197.42	187.08	180.10	V 3
	VZ 2	145.94	146.23	146.73	147.80	149.29	146.90	142.55	139.42	136.90	VZ 2
	VZ 3	114.83	129.86	142.90	169.53	162.73	157.61	143.66	136.65	127.84	VZ 3
	V-THETA 2	24.55	24.45	24.33	25.61	27.29	27.66	27.67	28.41	28.97	V-THETA 2
	V-THETA 3	176.76	172.02	167.30	145.98	134.84	130.64	128.69	127.98	126.80	V-THETA 3
	V(PR) 2	192.3	193.8	195.7	200.5	207.5	211.6	215.8	219.6	222.6	V(PR) 2
	V(PR) 3	118.8	132.1	143.7	170.2	166.3	164.4	163.6	163.4	161.1	V(PR) 3
	VTHETA PR2	-125.7	-127.1	-129.6	-135.4	-143.7	-152.1	-158.6	-160.1	-161.1	VTHETA PR2
	VTHETA PR3	26.8	20.0	13.3	-15.9	-33.0	-45.2	-49.1	-51.7	-53.1	VTHETA PR3
	U 2	149.70	151.56	153.89	161.01	171.04	179.09	186.66	189.44	190.77	U 2
	U 3	149.98	151.98	153.96	159.91	167.85	175.70	181.75	183.73	185.92	U 3
	M 2	0.4434	0.4442	0.4457	0.4489	0.4561	0.4502	0.4335	0.4284	0.4213	M 2
	M 3	0.6202	0.6354	0.6492	0.6642	0.6264	0.6057	0.5880	0.5661	0.5526	M 3
	M(PR) 2	0.5761	0.5805	0.5865	0.6010	0.6223	0.6383	0.6403	0.6371	0.6317	M(PR) 2
	M(PR) 3	0.3486	0.3887	0.4237	0.5053	0.4925	0.4857	0.4525	0.4326	0.4125	M(PR) 3
	TURN(PR)	53.663	49.725	46.772	37.783	32.401	24.900	27.700	26.547	24.824	TURN(PR)
	UUBAR	0.4237	0.3158	0.2095	-0.0639	-0.0280	-0.0160	0.0665	0.1010	0.1444	UUBAR
	LOSS PARA	0.1329	0.1020	0.0692	-0.0221	-0.0101	-0.0059	0.0251	0.0344	0.0539	LOSS PARA
	DFAC	0.6376	0.5674	0.5083	0.3581	0.3859	0.4083	0.4661	0.4850	0.5224	DFAC
	EFFP	0.6620	0.7385	0.8211	1.0577	1.0271	1.0103	0.9233	0.8749	0.8329	EFFP
	EFF	0.6535	0.7312	0.8156	1.0567	1.0280	1.0100	0.9212	0.8716	0.8281	EFF
	INCID	-15.016	-13.400	-12.557	-11.342	-10.498	-9.578	-8.795	-8.782	-8.467	INCID
	DEVM	20.671	17.375	14.671	12.685	9.250	6.472	8.875	11.221	13.159	DEVM
	P 2	10.062	10.090	10.105	10.126	10.154	10.133	10.083	10.048	10.020	P 2
	P 3	12.004	12.258	12.490	12.856	12.617	12.553	12.274	12.117	11.948	P 3
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	T 3	310.972	310.694	310.222	307.361	306.111	306.000	306.278	306.333	306.111	T 3
STATOR F	PCT SPAN	95.81	92.01	86.21	69.91	48.21	29.51	14.11	9.31	4.51	PCT SPAN
	DIA	0.423	0.427	0.432	0.448	0.468	0.487	0.508	0.514	0.520	DIA
STATOR-L.E.	BETA 3	57.047	52.551	48.847	39.963	38.689	38.729	40.930	42.424	44.043	BETA 3
STATOR-T.E.	BETA 4	9.207	9.217	9.137	8.585	8.126	8.618	9.442	9.744	9.179	BETA 4
	V 3	210.70	216.79	222.31	227.00	215.85	209.73	197.58	190.68	183.61	V 3
	V 4	167.62	174.80	186.53	200.04	194.47	186.70	183.38	179.44	178.69	V 4
	VZ 3	114.61	131.81	146.28	174.93	168.29	163.23	140.74	140.46	131.13	VZ 3
	VZ 4	165.45	172.52	184.13	197.69	192.29	184.00	180.13	176.14	176.26	VZ 4
	V-THETA 3	176.80	172.10	167.37	146.07	134.77	130.91	129.03	127.67	127.01	V-THETA 3
	V-THETA 4	26.82	27.99	29.61	29.84	27.44	28.87	29.06	28.69	29.52	V-THETA 4
	M 3	0.6184	0.6380	0.6562	0.6779	0.6402	0.6207	0.5820	0.5611	0.5586	M 3
	M 4	0.4852	0.5073	0.5437	0.5886	0.5774	0.5482	0.5376	0.5254	0.5098	M 4
	TURN(PR)	47.840	43.332	39.705	31.264	30.520	29.725	31.368	32.447	34.722	TURN(PR)
	UUBAR	0.0412	0.0623	0.0404	0.0474	0.0533	0.1448	0.1202	0.1117	0.1171	UUBAR
	LOSS PARA	0.0130	0.0109	0.0131	0.0147	0.0160	0.0536	0.0463	0.0435	0.0451	LOSS PARA
	DFAC	0.4325	0.4096	0.3653	0.2982	0.2801	0.2961	0.2713	0.2658	0.2747	DFAC
	EFFP	0.9028	0.8470	0.8843	0.8422	0.7592	0.3944	0.2366	0.1637	0.0215	EFFP
	INCID	-7.954	-6.852	-6.960	-12.456	-13.964	-14.428	-16.731	-16.667	-16.344	INCID
	DEVM	14.457	15.216	14.935	13.330	12.216	12.864	13.401	12.466	11.615	DEVM
	P 3	12.004	12.258	12.490	12.856	12.617	12.553	12.274	12.117	11.948	P 3
	P 4	11.892	12.075	12.363	12.708	12.459	12.136	11.976	11.847	11.702	P 4
	T 3	310.972	310.694	310.222	307.361	306.111	306.000	306.278	306.333	306.111	T 3
	T 4	310.972	310.694	310.222	307.361	306.111	306.000	306.278	306.333	306.111	T 4

Table B-3. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 67.97 Equivalent Rotor Speed = 6753.79 Equivalent Weight Flow = 13.436 kg/sec
Uniform Inlet
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	95.79	91.71	86.69	70.41	49.21	29.10	13.80	9.00	4.70	PCT SPAN
	DIA	0.425	0.432	0.439	0.464	0.495	0.526	0.549	0.556	0.562	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	12.344	12.022	11.875	12.100	13.048	13.347	14.222	14.831	15.339	BETA 2
	V 1	94.20	94.39	94.74	96.15	96.45	93.48	88.11	85.05	81.96	V 1
	V 2	105.34	105.97	106.92	108.63	108.58	106.02	102.41	100.62	99.56	V 2
	VZ 1	94.20	94.38	94.73	96.11	96.35	93.31	87.89	84.82	81.72	VZ 1
	VZ 2	102.91	103.64	104.61	106.09	105.49	102.61	98.53	96.47	95.14	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	22.52	22.07	22.00	22.86	24.45	24.35	24.97	25.54	26.10	V-THETA 2
	M 1	0.2790	0.2795	0.2806	0.2846	0.2857	0.2788	0.2607	0.2515	0.2423	M 1
	M 2	0.3126	0.3145	0.3174	0.3225	0.3224	0.3146	0.3037	0.2983	0.2951	M 2
	TURN	-12.34	-12.02	-11.87	-12.15	-13.01	-13.28	-14.11	-14.71	-15.20	TURN
	UUBAR	0.0264	0.0394	0.0261	0.0170	0.0188	0.0400	0.0526	0.0485	0.0174	UUBAR
	DFAC	-0.022	-0.028	-0.034	-0.032	-0.020	-0.023	-0.039	-0.049	-0.070	DFAC
	EFFP	0.9675	0.8725	0.9158	0.9579	0.9367	0.8809	0.8730	0.8946	0.9656	EFFP
	INCID	5.9000	5.9200	5.9700	6.2500	6.6600	7.0000	7.3200	7.4200	7.4200	INCID
	DEVM	4.656	5.279	5.808	6.652	7.229	8.334	8.567	8.344	8.083	DEVM
	P 1	10.096	10.110	10.117	10.145	10.166	10.152	10.110	10.082	10.054	P 1
	P 2	10.082	10.089	10.103	10.138	10.155	10.131	10.085	10.061	10.047	P 2
	T 1	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 1
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	UUBAR FS										UUBAR FS
	PI FS										PI FS
	LOSS PARA FS										LOSS PARA FS
ROTOR F	PCT SPAN	95.01	89.99	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA	0.425	0.430	0.436	0.453	0.475	0.498	0.515	0.520	0.526	DIA
ROTOR -L.E.	BETA 2	9.723	9.634	9.564	9.843	10.508	10.751	11.463	11.981	12.365	BETA 2
ROTOR -T.E.	BETA 3	61.964	56.565	52.141	44.672	40.410	43.133	46.205	47.843	49.675	BETA 3
	BETA(PR) 2	44.024	44.743	45.106	45.847	47.329	49.550	51.527	52.308	52.897	BETA(PR) 2
	BETA(PR) 3	-18.594	-10.875	-5.325	4.667	11.903	17.409	21.252	23.051	25.323	BETA(PR) 3
	V 2	133.74	132.61	133.32	136.04	137.41	135.18	131.12	128.94	127.76	V 2
	V 3	207.04	209.22	210.61	210.47	200.20	193.27	184.11	179.64	174.53	V 3
	VZ 2	131.62	130.74	131.46	133.96	134.83	132.25	127.75	125.33	123.94	VZ 2
	VZ 3	97.43	115.08	129.20	149.62	145.30	140.78	127.10	120.25	112.62	VZ 3
	V-THETA 2	22.59	22.19	22.15	23.24	25.01	25.11	25.95	26.60	27.17	V-THETA 2
	V-THETA 3	162.97	174.29	166.21	147.92	137.45	131.89	132.56	132.81	132.66	V-THETA 3
	V(PR) 2	183.3	184.1	186.3	192.4	199.1	204.2	205.8	205.5	206.0	V(PR) 2
	V(PR) 3	103.5	117.8	129.9	150.2	148.7	148.0	137.0	131.3	125.3	V(PR) 3
	VTHETA PR2	-127.4	-129.6	-131.9	-138.0	-146.3	-155.1	-160.8	-162.2	-163.9	VTHETA PR2
	VTHETA PR3	32.8	22.1	12.0	-12.2	-30.6	-44.1	-49.4	-51.2	-53.3	VTHETA PR3
	U 2	149.99	151.77	154.10	161.23	171.27	180.24	186.71	188.80	191.03	U 2
	U 3	150.19	152.18	154.17	160.13	168.08	176.03	182.00	183.98	185.96	U 3
	M 2	0.3992	0.3958	0.3979	0.4063	0.4106	0.4037	0.3912	0.3845	0.3808	M 2
	M 3	0.6073	0.6131	0.6187	0.6208	0.5895	0.5680	0.5389	0.5253	0.5092	M 3
	M(PR) 2	0.5472	0.5493	0.5559	0.5746	0.5949	0.6098	0.6140	0.6127	0.6141	M(PR) 2
	M(PR) 3	0.3027	0.3453	0.3816	0.4431	0.4380	0.4350	0.4010	0.3838	0.3655	M(PR) 3
	TURN(PR)	62.488	55.559	50.425	41.169	35.385	32.076	30.207	29.195	27.924	TURN(PR)
	UUBAR	0.3934	0.2782	0.1700	-0.0264	-0.0221	-0.0161	0.0573	0.0878	0.1241	UUBAR
	LOSS PARA	0.1201	0.0893	0.0561	-0.0091	-0.0079	-0.0059	0.0214	0.0328	0.0461	LOSS PARA
	DFAC	0.7174	0.6304	0.5592	0.4427	0.4574	0.4740	0.5385	0.5609	0.5982	DFAC
	EFFP	0.7254	0.7896	0.8668	1.0205	1.0190	1.0191	0.9419	0.9136	0.8774	EFFP
	EFF	0.7173	0.7831	0.8625	1.0212	1.0196	1.0197	0.9401	0.9113	0.8736	EFF
	INCID	-11.626	-9.657	-8.895	-7.988	-7.182	-6.622	-5.312	-5.426	-6.301	INCID
	DEVM	15.436	15.265	14.680	12.663	9.683	7.852	9.851	12.029	15.575	DEVM
	P 2	10.082	10.089	10.103	10.138	10.155	10.131	10.085	10.061	10.047	P 2
	P 3	12.369	12.523	12.664	12.867	12.720	12.656	12.474	12.376	12.264	P 3
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	T 3	312.333	311.611	310.444	308.055	306.944	306.722	307.361	307.444	307.500	T 3
STATOR F	PCT SPAN	95.81	92.01	86.21	69.91	49.21	29.51	14.11	9.31	4.51	PCT SPAN
	DIA	0.423	0.427	0.432	0.448	0.468	0.487	0.502	0.506	0.511	DIA
STATOR-L.E.	BETA 3	62.088	56.150	51.474	43.780	42.396	42.164	45.196	46.822	48.644	BETA 3
STATOR-T.E.	BETA 4	11.424	10.403	9.141	7.681	7.460	8.838	9.376	9.053	8.370	BETA 4
	V 3	207.11	209.47	212.57	214.00	203.98	197.44	187.86	183.22	177.88	V 3
	V 4	154.22	159.16	167.33	179.14	175.28	170.17	164.71	162.30	159.76	V 4
	VZ 3	96.95	116.95	132.39	154.45	150.48	146.04	132.01	124.99	117.17	VZ 3
	VZ 4	151.16	156.53	165.18	177.44	173.58	167.74	161.82	159.44	157.05	VZ 4
	V-THETA 3	183.01	174.38	166.28	148.01	137.39	132.25	132.91	133.21	133.11	V-THETA 3
	V-THETA 4	30.54	28.74	26.58	23.93	22.73	26.08	26.72	25.40	23.11	V-THETA 4
	M 3	0.6057	0.6154	0.6249	0.6320	0.6014	0.5811	0.5505	0.5360	0.5195	M 3
	M 4	0.4438	0.4592	0.4848	0.5229	0.5120	0.4965	0.4793	0.4719	0.4642	M 4
	TURN(PR)	50.664	45.746	42.329	36.084	34.891	33.239	35.697	37.636	40.126	TURN(PR)
	UUBAR	0.0465	0.0571	0.0407	0.0185	0.0305	0.0895	0.1073	0.1005	0.0851	UUBAR
	LOSS PARA	0.0146	0.0182	0.0132	0.0063	0.0109	0.0334	0.0414	0.0392	0.0336	LOSS PARA
	DFAC	0.4912	0.4673	0.4296	0.3625	0.3452	0.3439	0.3479	0.3506	0.3528	DFAC
	EFFP	0.9088	0.8832	0.9076	0.9471	0.8988	0.6936	0.5860	0.5813	0.6036	EFFP
	INCID	-2.913	-3.252	-4.333	-8.539	-10.259	-12.495	-12.467	-12.059	-11.757	INCID
	DEVM	16.674	16.402	14.939	12.427	11.551	12.816	13.336	12.205	10.616	DEVM
	P 3	12.369	12.523	12.664	12.867	12.720	12.656	12.474	12.376	12.264	P 3
	P 4	12.243	12.362	12.544	12.811	12.635	12.425	12.225	12.155	12.088	P 4
	T 3	312.333	311.611	310.444	308.055	306.944	306.722	307.361	307.444	307.500	T 3
	T 4	312.333	311.611	310.444	308.055	306.944	306.722	307.361	307.444	307.500	T 4

Table B-3. Blade Element Performance (Continued)
Stage F, Rotor F – Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 68.06 Equivalent Rotor Speed = 6762.80 Equivalent Weight Flow = 12.457 kg/sec
Uniform Inlet
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	95.79	91.71	86.89	70.41	49.21	29.10	13.80	9.00	4.70	PCT SPAN
	DIA	0.445	0.432	0.439	0.464	0.495	0.526	0.549	0.556	0.562	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	12.618	12.061	11.719	12.110	12.887	13.307	13.736	14.195	15.124	BETA 2
	V 1	86.83	87.25	87.70	88.88	88.99	86.84	81.55	79.06	76.57	V 1
	V 2	97.14	98.36	98.83	100.30	100.21	99.23	95.24	93.62	92.49	V 2
	VZ 1	86.83	87.25	87.69	88.85	88.90	86.68	81.34	78.84	76.35	VZ 1
	VZ 2	94.79	96.18	96.75	97.97	97.41	96.06	91.82	90.01	88.47	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	21.22	20.55	20.07	21.02	22.29	22.72	22.44	22.77	23.91	V-THETA 2
	M 1	0.2569	0.2581	0.2594	0.2630	0.2633	0.2569	0.2410	0.2336	0.2262	M 1
	M 2	0.2878	0.2915	0.2929	0.2973	0.2971	0.2941	0.2821	0.2772	0.2738	M 2
	TURN	-12.62	-12.06	-11.72	-12.10	-12.85	-13.24	-13.63	-14.08	-14.98	TURN
	UUBAR	0.0308	0.0305	0.0301	0.0146	0.0146	0.0	0.0174	0.0186	0.0	UUBAR
	DFAC	-0.020	-0.032	-0.034	-0.032	-0.021	-0.031	-0.048	-0.056	-0.066	DFAC
	EFFP	0.8935	0.9015	0.9023	0.9505	0.9500	0.9998	0.9554	0.9570	0.9999	EFFP
	INCID	5.9000	5.9200	5.9700	6.2500	6.6600	7.0000	7.3200	7.4200	7.4200	INCID
	DEVM	4.382	5.240	5.963	6.702	7.389	8.374	9.069	8.975	8.297	DEVM
	P 1	10.102	10.116	10.123	10.144	10.158	10.151	10.109	10.088	10.067	P 1
	P 2	10.088	10.102	10.109	10.137	10.151	10.151	10.102	10.081	10.067	P 2
	T 1	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 1
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	UUBAR FS										UUBAR FS
	P1 FS										P1 FS
	LOSS PARA FS										LOSS PARA FS
ROTOR F	PCT SPAN	95.01	89.99	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA	0.425	0.430	0.436	0.453	0.475	0.498	0.515	0.520	0.526	DIA
ROTOR -L.E.	BETA 2	9.992	9.711	9.487	9.855	10.438	10.769	11.147	11.523	12.248	BETA 2
ROTOR -T.E.	BETA 3	60.861	56.627	53.286	46.424	45.092	45.585	48.915	50.157	51.634	BETA 3
	BETA(PR) 2	46.859	47.397	47.951	48.702	50.229	51.882	54.119	54.884	55.427	BETA(PR) 2
	BETA(PR) 3	-14.612	-8.337	-4.009	5.148	12.342	17.797	21.823	23.765	25.756	BETA(PR) 3
	V 2	122.66	122.51	122.63	124.95	126.11	125.95	121.35	119.43	118.15	V 2
	V 3	201.82	202.32	203.27	203.93	195.26	188.05	179.62	175.90	172.31	V 3
	VZ 2	120.80	120.76	120.95	123.05	123.77	123.22	118.37	116.28	114.67	VZ 2
	VZ 3	98.10	111.10	121.47	140.52	137.73	131.38	117.77	112.42	106.68	VZ 3
	V-THETA 2	21.28	20.66	20.21	21.37	22.80	23.44	23.33	23.71	24.89	V-THETA 2
	V-THETA 3	175.97	168.67	162.89	147.69	138.17	134.09	135.08	134.72	134.75	V-THETA 3
	V(PR) 2	176.7	178.4	180.6	186.5	193.6	199.9	202.4	202.6	202.5	V(PR) 2
	V(PR) 3	102.1	112.9	121.9	141.2	141.2	138.4	127.4	123.4	119.1	V(PR) 3
	VTHETA PR2	-128.9	-131.3	-134.1	-140.1	-148.7	-157.0	-163.6	-165.4	-166.4	VTHETA PR2
	VTHETA PR3	25.6	16.3	8.5	-12.7	-30.1	-42.2	-47.2	-49.5	-51.5	VTHETA PR3
	U 2	150.19	151.97	154.30	161.44	171.50	180.48	186.96	189.06	191.29	U 2
	U 3	150.39	152.39	154.38	160.35	168.31	176.27	182.24	184.23	186.22	U 3
	M 2	0.3652	0.3648	0.3651	0.3722	0.3758	0.3753	0.3612	0.3554	0.3515	M 2
	M 3	0.5900	0.5921	0.5958	0.5998	0.5734	0.5510	0.5240	0.5125	0.5016	M 3
	M(PR) 2	0.5260	0.5312	0.5377	0.5555	0.5770	0.5958	0.6024	0.6028	0.6025	M(PR) 2
	M(PR) 3	0.2985	0.3304	0.3573	0.4152	0.4147	0.4056	0.3718	0.3597	0.3466	M(PR) 3
	TURN(PR)	61.366	55.688	51.954	43.542	37.847	34.023	32.233	31.065	29.628	TURN(PR)
	UUBAR	0.3568	0.2665	0.1820	-0.0073	-0.0145	0.0151	0.0909	0.1118	0.1290	UUBAR
	LOSS PARA	0.1112	0.0861	0.0602	-0.0025	-0.0052	0.0056	0.0339	0.0416	0.0478	LOSS PARA
	DFAC	0.7043	0.6386	0.5871	0.4766	0.4864	0.5182	0.5881	0.6092	0.6308	DFAC
	EFFP	0.7623	0.8059	0.8661	1.0016	1.0090	0.9848	0.9096	0.8913	0.8748	EFFP
	EFF	0.7552	0.7999	0.8618	1.0017	1.0093	0.9843	0.9068	0.8880	0.8710	EFF
	INCID	-8.791	-7.003	-6.050	-5.133	-4.282	-3.688	-2.717	-2.844	-3.766	INCID
	DEVM	19.393	17.809	15.995	13.145	10.121	8.238	10.420	12.741	16.007	DEVM
	P 2	10.088	10.102	10.109	10.137	10.151	10.151	10.102	10.081	10.067	P 2
	P 3	12.411	12.523	12.642	12.858	12.767	12.698	12.544	12.471	12.405	P 3
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	T 3	311.444	310.972	310.222	308.389	307.500	307.500	308.444	308.500	308.500	T 3
STATOR F	PCT SPAN	95.81	92.01	86.21	69.91	49.21	29.51	14.11	9.31	4.51	PCT SPAN
	DIA	0.423	0.427	0.432	0.448	0.468	0.487	0.502	0.506	0.511	DIA
STATOR-L.E.	BETA 3	60.958	56.224	52.623	45.517	44.040	44.572	47.835	49.074	50.538	BETA 3
STATOR-T.E.	BETA 4	12.920	12.283	11.217	9.539	8.849	10.082	10.423	10.357	10.225	BETA 4
	V 3	201.32	203.02	205.08	207.20	198.86	191.97	183.19	179.33	175.60	V 3
	V 4	137.07	140.97	147.41	160.17	157.23	153.64	148.44	145.69	142.66	V 4
	VZ 3	97.73	112.87	124.48	145.13	142.81	136.49	122.65	117.16	111.29	VZ 3
	VZ 4	133.59	137.73	144.56	157.87	155.17	150.90	145.37	142.58	139.51	VZ 4
	V-THETA 3	176.01	168.75	162.95	147.78	138.10	134.46	135.43	135.13	135.19	V-THETA 3
	V-THETA 4	30.64	29.99	28.67	26.53	24.16	26.83	26.74	26.06	25.16	V-THETA 4
	M 3	0.5884	0.5942	0.6015	0.6101	0.5847	0.5632	0.5350	0.5231	0.5116	M 3
	M 4	0.3934	0.4053	0.4250	0.4647	0.4565	0.4457	0.4293	0.4210	0.4120	M 4
	TURN(PR)	48.039	43.939	41.402	35.964	35.147	34.406	37.294	38.590	40.180	TURN(PR)
	UUBAR	0.0323	0.0420	0.0362	0.0195	0.0331	0.0653	0.0801	0.0822	0.0877	UUBAR
	LOSS PARA	0.0101	0.0132	0.0123	0.0066	0.0118	0.0242	0.0308	0.0319	0.0344	LOSS PARA
	DFAC	0.5505	0.5277	0.4972	0.4285	0.4179	0.4142	0.4254	0.4320	0.4420	DFAC
	EFFP	0.9470	0.9288	0.9309	0.9579	0.9226	0.8388	0.7903	0.7817	0.7661	EFFP
	INCID	-4.042	-3.179	-3.184	-6.802	-8.615	-10.087	-9.827	-9.806	-9.861	INCID
	DEVM	18.169	18.282	17.014	14.284	12.938	14.057	14.378	13.503	12.459	DEVM
	P 3	12.411	12.523	12.642	12.858	12.767	12.698	12.544	12.471	12.405	P 3
	P 4	12.328	12.411	12.537	12.807	12.680	12.537	12.366	12.296	12.227	P 4
	T 3	311.444	310.972	310.222	308.389	307.500	307.500	308.444	308.500	308.500	T 3
	T 4	311.444	310.972	310.222	308.389	307.500	307.500	308.444	308.500	308.500	T 4

Table B-3. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 67.76 Equivalent Rotor Speed = 6732.91 Equivalent Weight Flow = 11.566 kg/sec
Uniform Inlet
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	95.79	91.71	86.89	70.41	49.21	29.10	13.80	5.00	4.70	PCT SPAN
	DIA	0.425	0.432	0.439	0.464	0.495	0.526	0.549	0.561	0.562	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	11.945	11.650	11.622	12.268	13.011	13.266	13.550	14.442	15.258	BETA 2
	V 1	78.20	79.28	79.85	82.05	82.46	78.77	74.27	71.56	69.72	V 1
	V 2	88.03	89.92	91.07	92.41	92.26	90.61	88.08	86.43	85.72	V 2
	VZ 1	78.20	79.27	79.84	82.02	82.38	79.65	74.06	71.37	69.52	VZ 1
	VZ 2	86.13	88.06	89.19	90.22	89.64	87.74	84.68	83.47	81.65	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	18.22	18.16	18.34	19.62	20.71	20.69	20.93	21.57	22.55	V-THETA 2
	M 1	0.2310	0.2342	0.2359	0.2425	0.2438	0.2357	0.2193	0.2112	0.2058	M 1
	M 2	0.2604	0.2661	0.2696	0.2736	0.2731	0.2682	0.2606	0.2571	0.2535	M 2
	TURN	-11.94	-11.65	-11.62	-12.26	-12.97	-13.20	-13.74	-14.37	-15.12	TURN
	UUBAR	0.0474	0.0368	0.0181	0.0343	0.0509	0.0543	0.0209	0.0	0.0	UUBAR
	DFAC	-0.032	-0.042	-0.047	-0.028	-0.014	-0.025	-0.063	-0.080	-0.084	DFAC
	EFFP	0.8524	0.8887	0.9444	0.8893	0.8356	0.8456	0.9520	1.0000	0.9599	EFFP
	INCID	5.9000	5.9200	5.9700	6.2500	6.6600	7.0000	7.3200	7.4200	7.4200	INCID
	DEVM	5.055	5.651	6.061	6.544	7.266	8.414	8.956	8.681	8.164	DEVM
	P 1	10.095	10.112	10.119	10.147	10.161	10.147	10.105	10.084	10.070	P 1
	P 2	10.077	10.098	10.112	10.133	10.140	10.126	10.098	10.084	10.070	P 2
	T 1	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 1
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	UUBAR FS										UUBAR FS
	P1 FS										P1 FS
	LOSS PARA FS										LOSS PARA FS
ROTOR F	PCT SPAN	95.01	89.99	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA	0.425	0.430	0.436	0.453	0.475	0.498	0.515	0.520	0.526	DIA
ROTOR -L.E.	BETA 2	9.509	9.423	9.445	10.025	10.586	10.791	11.285	11.808	12.404	BETA 2
ROTOR -T.E.	BETA 3	61.666	58.566	55.878	48.229	46.909	46.896	51.413	53.389	55.255	BETA 3
	BETA(PR) 2	50.267	50.412	50.596	51.289	52.834	54.742	56.456	57.045	57.666	BETA(PR) 2
	BETA(PR) 3	-14.205	-9.136	-4.972	5.701	12.493	19.051	22.604	24.451	26.922	BETA(PR) 3
	V 2	110.62	111.52	112.56	114.64	115.58	114.43	111.76	110.48	109.09	V 2
	V 3	197.33	197.50	197.35	196.74	190.21	181.05	174.59	171.16	167.22	V 3
	VZ 2	109.10	110.02	111.03	112.83	113.38	111.94	108.99	107.46	105.62	VZ 2
	VZ 3	93.49	102.84	110.67	130.49	129.84	124.12	108.67	101.86	95.10	VZ 3
	V-THETA 2	18.27	18.26	18.47	19.95	21.19	21.34	21.75	22.46	23.27	V-THETA 2
	V-THETA 3	173.39	168.25	163.37	146.61	138.79	132.62	130.19	137.10	137.11	V-THETA 3
	V(PR) 2	170.7	172.6	174.9	180.5	187.8	194.2	197.6	197.9	198.3	V(PR) 2
	V(PR) 3	97.1	104.7	111.2	131.2	133.2	131.7	118.2	112.4	107.2	V(PR) 3
	VTHETA PR2	-131.3	-133.0	-135.2	-140.8	-149.6	-158.3	-164.4	-165.8	-167.4	VTHETA PR2
	VTHETA PR3	23.7	16.5	9.6	-13.0	-28.8	-42.9	-45.2	-46.3	-48.3	VTHETA PR3
	U 2	149.53	151.20	153.62	160.73	170.74	179.68	186.13	188.22	190.44	U 2
	U 3	149.73	151.71	153.69	159.64	167.56	175.49	181.43	183.41	185.40	U 3
	M 2	0.3286	0.3313	0.3344	0.3408	0.3436	0.3401	0.3321	0.3281	0.3239	M 2
	M 3	0.5760	0.5770	0.5771	0.5760	0.5574	0.5314	0.5083	0.4976	0.4855	M 3
	M(PR) 2	0.5069	0.5129	0.5197	0.5364	0.5584	0.5772	0.5870	0.5879	0.5887	M(PR) 2
	M(PR) 3	0.2835	0.3060	0.3252	0.3850	0.3904	0.3852	0.3442	0.3269	0.3113	M(PR) 3
	TURN(PR)	64.369	59.496	55.562	45.577	40.302	35.636	33.798	32.549	30.712	TURN(PR)
	UUBAR	0.3515	0.2810	0.2157	0.0178	-0.0087	0.0105	0.1061	0.1360	0.1598	UUBAR
	LOSS PARA	0.1098	0.0907	0.0713	0.0062	-0.0031	0.0038	0.0363	0.0503	0.0556	LOSS PARA
	DFAC	0.7239	0.6777	0.6389	0.5150	0.5176	0.5397	0.6301	0.6630	0.6906	DFAC
	EFFP	0.7811	0.8153	0.8540	0.9862	1.0040	0.9915	0.9046	0.8793	0.8576	EFFP
	EFF	0.7744	0.8095	0.8492	0.9858	1.0042	0.9912	0.9016	0.8755	0.8553	EFF
	INCID	-5.383	-3.988	-3.40	-2.546	-1.675	-0.825	-0.375	-0.678	-1.520	INCID
	DEVM	19.798	17.015	15.03	13.697	10.272	9.489	11.198	13.423	17.168	DEVM
	P 2	10.077	10.098	10.112	10.133	10.140	10.126	10.098	10.084	10.070	P 2
	P 3	12.456	12.553	12.630	12.790	12.780	12.686	12.567	12.504	12.431	P 3
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	T 3	311.389	311.000	310.417	308.278	307.778	307.500	308.778	309.028	309.111	T 3
STATOR F	PCT SPAN	95.81	92.01	86.21	69.91	49.21	29.51	14.11	5.31	4.51	PCT SPAN
	DIA	0.423	0.427	0.432	0.448	0.468	0.487	0.502	0.506	0.511	DIA
STATOR-L.E.	BETA 3	61.768	58.157	55.176	47.394	45.830	45.872	50.264	52.213	54.047	BETA 3
STATOR-T.E.	BETA 4	15.579	14.508	13.002	10.886	10.698	11.144	11.391	11.145	10.903	BETA 4
	V 3	196.85	198.16	199.05	199.38	193.59	185.63	177.98	174.41	170.33	V 3
	V 4	125.12	128.70	134.62	144.46	144.83	140.76	136.86	134.84	132.26	V 4
	VZ 3	93.12	104.55	113.66	134.93	134.77	129.00	113.51	106.61	99.76	VZ 3
	VZ 4	120.52	124.58	131.14	141.79	142.14	137.78	133.60	131.62	129.05	VZ 4
	V-THETA 3	173.43	168.33	163.39	146.70	138.73	132.99	136.55	137.51	137.55	V-THETA 3
	V-THETA 4	33.60	32.24	30.28	27.27	26.85	27.14	26.92	25.93	24.86	V-THETA 4
	M 3	0.5746	0.5790	0.5824	0.5856	0.5679	0.5434	0.5187	0.5075	0.4950	M 3
	M 4	0.3582	0.3690	0.3868	0.4175	0.4190	0.4070	0.3945	0.3884	0.3806	M 4
	TURN(PR)	46.190	43.648	42.170	36.494	35.089	34.645	38.761	40.949	43.070	TURN(PR)
	UUBAR	0.0391	0.0492	0.0377	0.0289	0.0403	0.0604	0.0695	0.0657	0.0600	UUBAR
	LOSS PARA	0.0120	0.0154	0.0120	0.0097	0.0142	0.0224	0.0266	0.0255	0.0235	LOSS PARA
	DFAC	0.5920	0.5737	0.5443	0.4817	0.4623	0.4599	0.4758	0.4839	0.4921	DFAC
	EFFP	0.9417	0.9245	0.9387	0.9464	0.9190	0.8726	0.8460	0.8516	0.8621	EFFP
	INCID	-3.232	-1.246	-0.631	-4.925	-6.826	-8.788	-7.396	-6.663	-6.346	INCID
	DEVM	20.828	20.506	18.799	15.631	14.785	15.117	15.343	14.288	13.134	DEVM
	P 3	12.456	12.553	12.630	12.790	12.780	12.686	12.567	12.504	12.431	P 3
	P 4	12.358	12.428	12.532	12.714	12.679	12.546	12.421	12.372	12.316	P 4
	T 3	311.389	311.000	310.417	308.278	307.778	307.500	308.778	309.028	309.111	T 3
	T 4	311.389	311.000	310.417	308.278	307.778	307.500	308.778	309.028	309.111	T 4

ORIGINAL PAGE IS
OF POOR QUALITY

Table B-3. Blade Element Performance (Continued)
Stage F, Rotor F – Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 67.11 Equivalent Rotor Speed = 6667.62 Equivalent Weight Flow = 10.59 kg/sec
Uniform Inlet
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	95.79	91.71	86.89	70.41	49.21	29.10	13.80	9.00	4.70	PCT SPAN
	DIA	0.425	0.432	0.439	0.464	0.495	0.526	0.549	0.556	0.562	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	12.544	11.981	11.610	11.902	12.887	13.431	13.670	14.387	15.356	BETA 2
	V 1	74.22	73.72	74.64	75.12	74.34	71.01	66.19	63.97	62.22	V 1
	V 2	78.65	81.19	82.92	84.19	83.79	81.66	79.90	78.52	76.88	V 2
	VZ 1	74.22	73.72	74.64	75.09	74.26	70.88	66.02	63.79	62.03	VZ 1
	VZ 2	76.77	79.41	81.20	82.30	81.45	79.01	77.05	75.43	73.46	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	17.08	16.85	16.68	17.35	18.64	18.87	18.74	19.35	20.17	V-THETA 2
	M 1	0.2192	0.2177	0.2204	0.2218	0.2195	0.2096	0.1952	0.1886	0.1834	M 1
	M 2	0.2324	0.2400	0.2451	0.2489	0.2477	0.2414	0.2361	0.2320	0.2271	M 2
	TURN	-12.54	-11.98	-11.61	-11.89	-12.85	-13.36	-13.57	-14.27	-15.21	TURN
	UUBAR	0.1465	0.0742	0.0413	0.0204	0.0208	0.0228	-0.0263	-0.0282	0.0	UUBAR
	DFAC	0.033	-0.009	-0.020	-0.026	-0.022	-0.036	-0.084	-0.093	-0.088	DFAC
	EFFP	0.4610	0.7451	0.8525	0.9275	0.9294	0.9350	1.0596	1.0574	0.9997	EFFP
	INCID	5.9000	5.9200	5.9700	6.2500	6.6600	7.0000	7.3200	7.4200	7.4200	INCID
	DEVM	4.456	5.321	6.073	6.910	7.389	8.250	9.134	8.785	8.066	DEVM
	P 1	10.117	10.120	10.131	10.144	10.151	10.137	10.110	10.096	10.085	P 1
	P 2	10.068	10.096	10.117	10.127	10.144	10.131	10.117	10.103	10.085	P 2
	T 1	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 1
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	UUBAR FS										UUBAR FS
	P1 FS										P1 FS
	LOSS PARA FS										LOSS PARA FS
ROTOR F	PCT SPAN	95.01	89.99	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA	0.425	0.430	0.436	0.453	0.475	0.498	0.515	0.520	0.526	DIA
ROTOR -L.E.	BETA 2	10.028	9.727	9.471	9.766	10.531	10.674	11.186	11.772	12.537	BETA 2
ROTOR -T.E.	BETA 3	66.965	63.040	59.712	50.064	50.037	50.951	56.477	56.526	60.421	BETA 3
	BETA(PR) 2	53.500	53.355	53.345	54.093	55.642	57.652	59.143	59.823	60.595	BETA(PR) 2
	BETA(PR) 3	-20.930	-13.995	-8.745	4.422	12.348	18.566	22.058	23.980	26.353	BETA(PR) 3
	V 2	98.40	100.30	102.10	104.04	104.53	102.66	100.08	99.38	97.42	V 2
	V 3	192.63	193.26	193.71	193.70	193.07	176.10	170.19	167.65	165.05	V 3
	VZ 2	96.90	98.86	100.71	102.48	102.56	100.37	98.50	98.67	96.45	VZ 2
	VZ 3	75.29	87.51	97.67	124.31	117.50	110.79	93.84	87.37	81.24	VZ 3
	V-THETA 2	17.13	16.95	16.80	17.64	19.06	19.46	19.48	20.15	21.00	V-THETA 2
	V-THETA 3	177.07	172.05	167.23	148.48	140.22	136.57	141.65	142.77	143.31	V-THETA 3
	V(PR) 2	162.9	165.6	168.7	174.8	181.4	187.8	192.3	192.6	192.7	V(PR) 2
	V(PR) 3	81.1	90.7	98.9	124.8	120.5	117.2	101.7	96.1	91.3	V(PR) 3
	VTHETA PR2	-130.9	-132.9	-135.3	-141.5	-150.0	-158.5	-164.9	-166.3	-167.6	VTHETA PR2
	VTHETA PR3	28.8	21.8	15.0	-9.6	-25.7	-37.2	-38.0	-38.9	-40.3	VTHETA PR3
	U 2	148.08	149.83	152.13	156.17	169.09	177.64	184.33	186.40	188.59	U 2
	U 3	148.27	150.24	152.20	158.09	165.94	173.79	179.67	181.63	183.60	U 3
	M 2	0.2916	0.2973	0.3028	0.3086	0.3101	0.3045	0.2994	0.2984	0.2887	M 2
	M 3	0.5610	0.5633	0.5651	0.5672	0.5349	0.5133	0.4936	0.4860	0.4774	M 3
	M(PR) 2	0.4827	0.4910	0.5003	0.5185	0.5395	0.5570	0.5703	0.5710	0.5710	M(PR) 2
	M(PR) 3	0.2363	0.2643	0.2886	0.3654	0.3520	0.3417	0.2952	0.2786	0.2645	M(PR) 3
	TURN(PR)	74.286	67.274	62.079	49.659	43.258	39.034	37.035	36.804	34.218	TURN(PR)
	UUBAR	0.3974	0.3205	0.2524	0.0130	0.0372	0.0613	0.1667	0.1901	0.2043	UUBAR
	LOSS PARA	0.1196	0.1016	0.0827	0.0045	0.0133	0.0225	0.0620	0.0706	0.0753	LOSS PARA
	DFAC	0.8184	0.7590	0.7094	0.5445	0.5788	0.6132	0.7220	0.7514	0.7827	DFAC
	EFFP	0.7791	0.8103	0.8444	0.9283	0.9675	0.9507	0.8897	0.8537	0.8424	EFFP
	EFF	0.7722	0.8043	0.8394	0.9058	0.9664	0.9491	0.8655	0.8490	0.8379	EFF
	INCID	-2.150	-1.045	-0.656	0.258	1.135	2.080	2.320	2.108	1.414	INCID
	DEVM	13.114	12.181	11.264	12.410	10.127	9.006	10.654	12.094	12.601	DEVM
	P 2	10.068	10.096	10.117	10.127	10.144	10.131	10.117	10.103	10.085	P 2
	P 3	12.485	12.593	12.681	12.876	12.736	12.688	12.618	12.583	12.548	P 3
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	T 3	311.833	311.528	311.055	308.833	308.194	308.333	309.861	310.139	310.333	T 3
STATOR F	PCT SPAN	95.81	92.01	88.21	69.91	49.21	28.51	14.11	9.31	4.51	PCT SPAN
	DIA	0.423	0.427	0.432	0.448	0.468	0.487	0.502	0.506	0.511	DIA
STATOR-L.E.	BETA 3	67.162	62.600	58.974	49.100	48.873	49.808	55.130	57.132	58.961	BETA 3
STATOR-T.E.	BETA 4	17.593	16.666	15.151	12.474	11.897	12.207	12.412	12.446	12.486	BETA 4
	V 3	192.18	193.89	195.34	196.81	186.21	179.57	173.42	170.81	168.67	V 3
	V 4	115.01	119.35	126.46	139.48	133.34	130.59	129.52	129.60	127.77	V 4
	VZ 3	74.59	86.23	100.82	128.70	122.38	115.70	98.67	92.42	86.65	VZ 3
	VZ 4	109.62	114.33	122.04	132.21	130.33	127.33	125.96	125.14	124.07	VZ 4
	V-THETA 3	177.11	172.14	167.29	148.57	140.15	136.98	142.02	143.20	143.77	V-THETA 3
	V-THETA 4	34.76	34.22	33.05	29.25	27.46	27.56	27.72	27.62	27.48	V-THETA 4
	M 3	0.5596	0.5652	0.5702	0.5764	0.5446	0.5240	0.5038	0.4956	0.4871	M 3
	M 4	0.3284	0.3412	0.3624	0.3904	0.3845	0.3762	0.3721	0.3698	0.3666	M 4
	TURN(PR)	49.569	45.934	43.769	36.613	35.936	37.523	42.618	44.584	46.342	TURN(PR)
	UUBAR	0.0524	0.0638	0.0500	0.0644	0.0449	0.0676	0.0659	0.0606	0.0556	UUBAR
	LOSS PARA	0.0160	0.0198	0.0158	0.0215	0.0158	0.0249	0.0252	0.0235	0.0216	LOSS PARA
	DFAC	0.6389	0.6156	0.5794	0.5200	0.5042	0.5059	0.5150	0.5178	0.5202	DFAC
	EFFP	0.9268	0.9081	0.9234	0.8911	0.9174	0.8702	0.8643	0.8711	0.8763	EFFP
	INCID	2.161	3.197	3.117	-3.219	-3.782	-4.850	-2.523	-1.734	-1.361	INCID
	DEVM	22.842	22.664	20.948	17.218	15.982	16.179	16.356	15.592	14.710	DEVM
	P 3	12.485	12.593	12.681	12.876	12.736	12.688	12.618	12.583	12.548	P 3
	P 4	12.360	12.437	12.555	12.708	12.632	12.541	12.485	12.461	12.444	P 4
	T 3	311.833	311.528	311.055	308.833	308.194	308.333	309.861	310.139	310.333	T 3
	T 4	311.833	311.528	311.055	308.833	308.194	308.333	309.861	310.139	310.333	T 4

ORIGINAL PAGE IS
OF POOR QUALITY

Table B-3. Blade Element Performance (Continued)
Stage F, Rotor F – Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 68.04 Equivalent Rotor Speed = 6760.40 Equivalent Weight Flow = 9.810 kg/sec
Uniform Inlet
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	95.79	91.71	86.89	70.41	49.21	29.10	13.80	9.00	4.70	PCT SPAN
	DIA	0.425	0.432	0.439	0.464	0.495	0.526	0.549	0.556	0.562	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	12.831	12.243	11.745	11.948	12.827	13.070	13.554	14.067	14.862	BETA 2
	V 1	66.22	66.29	69.04	69.93	70.87	67.54	63.85	61.58	60.50	V 1
	V 2	75.55	77.05	78.65	79.07	79.46	78.32	75.60	74.22	72.88	V 2
	VZ 1	66.21	66.29	69.04	69.90	70.79	67.42	63.69	61.58	60.33	VZ 1
	VZ 2	73.66	75.29	76.40	77.28	77.26	75.89	72.94	71.39	69.80	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	16.76	16.34	15.66	16.35	17.59	17.62	17.59	17.91	18.52	V-THETA 2
	M 1	0.2013	0.2015	0.2037	0.2064	0.2092	0.1993	0.1883	0.1821	0.1784	M 1
	M 2	0.2231	0.2276	0.2306	0.2336	0.2346	0.2314	0.2233	0.2191	0.2152	M 2
	TURN	-12.83	-12.24	-11.74	-11.94	-12.79	-13.00	-13.45	-13.97	-14.72	TURN
	UUBAR	0.0370	0.0123	0.0	0.0	0.0228	-0.0126	0.0140	0.0150	0.0470	UUBAR
	DFAC	-0.008	-0.032	-0.037	-0.035	-0.017	-0.048	-0.064	-0.073	-0.065	DFAC
	EFFP	0.8619	0.9577	1.0000	1.0002	0.9202	1.0366	0.9667	0.9677	0.9067	EFFP
	INCID	5.9000	5.9200	5.9700	6.2500	6.6600	7.0000	7.3200	7.4200	7.4200	INCID
	DEVM	4.170	5.058	5.940	6.863	7.450	8.610	9.250	9.082	8.557	DEVM
	P 1	10.110	10.117	10.124	10.138	10.155	10.138	10.117	10.103	10.096	P 1
	P 2	10.099	10.113	10.124	10.138	10.148	10.141	10.113	10.099	10.086	P 2
	T 1	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 1
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	UUBAR FS										UUBAR FS
	P1 FS										P1 FS
	LOSS PARA FS										LOSS PARA FS
ROTOR F	PCT SPAN	95.01	89.99	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA	0.425	0.430	0.436	0.453	0.475	0.498	0.515	0.520	0.526	DIA
ROTOR -L.E.	BETA 2	10.269	9.955	9.597	9.824	10.501	10.696	11.112	11.551	12.159	BETA 2
ROTOR -T.E.	BETA 3	68.573	64.707	61.649	51.595	51.784	53.298	58.603	60.692	61.693	BETA 3
	BETA(PR) 2	55.135	55.365	55.623	50.441	57.678	59.332	61.110	61.818	62.501	BETA(PR) 2
	BETA(PR) 3	-20.639	-13.525	-8.344	5.105	12.383	19.708	24.152	25.311	26.304	BETA(PR) 3
	V 2	94.39	95.02	95.93	97.51	98.94	98.32	95.38	93.75	92.18	V 2
	V 3	189.70	190.29	190.47	191.07	182.69	173.67	167.81	167.13	167.21	V 3
	VZ 2	92.66	93.59	94.58	96.03	97.09	96.21	93.05	91.26	89.50	VZ 2
	VZ 3	69.23	81.22	90.43	118.66	112.93	103.67	87.30	81.69	78.66	VZ 3
	V-THETA 2	16.83	16.43	15.99	16.63	18.00	18.17	18.28	18.60	19.28	V-THETA 2
	V-THETA 3	176.41	171.87	167.58	149.69	143.45	139.07	143.03	145.53	147.27	V-THETA 3
	V(PR) 2	102.5	104.7	107.5	173.7	181.7	188.8	192.9	193.5	194.1	V(PR) 2
	V(PR) 3	74.5	84.0	91.5	119.2	115.8	110.5	96.1	90.8	88.2	V(PR) 3
	VTHETA PR2	-133.3	-135.5	-138.3	-144.8	-153.4	-162.2	-168.6	-170.3	-171.9	VTHETA PR2
	VTHETA PR3	26.1	19.5	13.3	-10.6	-24.8	-37.1	-39.1	-38.6	-38.9	VTHETA PR3
	U 2	150.14	151.92	154.25	161.39	171.44	180.41	186.89	188.99	191.22	U 2
	U 3	150.34	152.33	154.32	160.29	168.25	176.20	182.17	184.16	186.16	U 3
	M 2	0.2795	0.2814	0.2842	0.2889	0.2933	0.2914	0.2825	0.2776	0.2729	M 2
	M 3	0.5517	0.5538	0.5547	0.5585	0.5328	0.5050	0.4880	0.4836	0.4834	M 3
	M(PR) 2	0.4812	0.4877	0.4962	0.5148	0.5385	0.5596	0.5713	0.5731	0.5747	M(PR) 2
	M(PR) 3	0.2166	0.2444	0.2664	0.3405	0.3378	0.3212	0.2783	0.2627	0.2550	M(PR) 3
	TURN(PR)	75.631	68.810	63.958	51.326	45.260	39.579	36.922	36.480	36.180	TURN(PR)
	UUBAR	0.4483	0.3723	0.3052	0.0605	0.0749	0.1166	0.1998	0.2210	0.2241	UUBAR
	LOSS PARA	0.1351	0.1183	0.1001	0.0209	0.0268	0.0425	0.0752	0.0812	0.0826	LOSS PARA
	DFAC	0.8563	0.7989	0.7540	0.5782	0.6129	0.6589	0.7573	0.7928	0.8120	DFAC
	EFFP	0.7553	0.7881	0.8204	0.9565	0.9426	0.9075	0.8462	0.8396	0.8355	EFFP
	EFF	0.7479	0.7814	0.8146	0.9550	0.9407	0.9045	0.8413	0.8344	0.8301	EFF
	INCID	-0.515	0.965	1.622	2.607	3.172	3.773	4.292	4.110	3.332	INCID
	DEVM	13.403	12.649	11.664	13.101	10.162	10.144	12.740	14.280	16.552	DEVM
	P 2	10.099	10.113	10.124	10.138	10.148	10.141	10.113	10.099	10.086	P 2
	P 3	12.469	12.573	12.660	12.868	12.799	12.698	12.636	12.649	12.684	P 3
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	T 3	312.083	311.833	311.500	309.444	309.167	309.305	310.667	311.111	311.667	T 3
STATOR F	PCT SPAN	95.81	92.01	86.21	69.91	49.21	29.51	14.11	9.31	4.51	PCT SPAN
	DIA	0.423	0.427	0.432	0.448	0.468	0.487	0.502	0.506	0.511	DIA
STATOR-L.E.	BETA 3	68.803	64.254	60.814	50.593	50.555	52.073	57.162	59.172	60.342	BETA 3
STATOR-T.E.	BETA 4	16.307	16.085	15.510	14.072	12.236	12.397	11.872	11.547	11.226	BETA 4
	V 3	189.26	190.90	192.04	193.91	165.62	177.05	170.97	170.26	170.31	V 3
	V 4	101.70	107.14	114.60	127.38	124.88	122.71	123.40	124.69	125.85	V 4
	VZ 3	68.43	82.92	93.65	123.06	117.96	108.67	92.56	87.11	84.13	VZ 3
	VZ 4	97.61	102.94	110.41	123.49	121.90	119.57	120.25	121.54	122.67	VZ 4
	V-THETA 3	176.45	171.95	167.65	149.78	143.38	139.45	143.41	145.96	147.74	V-THETA 3
	V-THETA 4	28.55	29.68	30.64	30.95	26.44	26.28	25.28	24.83	24.35	V-THETA 4
	M 3	0.5504	0.5557	0.5595	0.5673	0.5425	0.5154	0.4956	0.4931	0.4928	M 3
	M 4	0.2896	0.3055	0.3274	0.3660	0.3588	0.3524	0.3536	0.3571	0.3602	M 4
	TURN(PR)	52.497	48.169	45.301	36.510	38.280	39.600	45.192	47.524	49.012	TURN(PR)
	UUBAR	0.0867	0.0933	0.0816	0.0784	0.0882	0.0825	0.0658	0.0645	0.0733	UUBAR
	LOSS PARA	0.0266	0.0290	0.0258	0.0260	0.0310	0.0304	0.0251	0.0249	0.0287	LOSS PARA
	DFAC	0.7130	0.6809	0.6386	0.5542	0.5570	0.5514	0.5526	0.5533	0.5550	DFAC
	EFFP	0.8898	0.8771	0.8862	0.8769	0.8550	0.8557	0.8746	0.8729	0.8523	EFFP
	INCID	3.803	4.852	5.007	-1.726	-2.099	-2.563	-0.487	0.311	-0.033	INCID
	DEVM	21.556	22.084	21.306	18.814	16.322	16.367	15.821	14.687	13.455	DEVM
	P 3	12.469	12.573	12.660	12.868	12.799	12.698	12.636	12.649	12.684	P 3
	P 4	12.268	12.351	12.462	12.670	12.594	12.525	12.507	12.525	12.542	P 4
	T 3	312.083	311.833	311.500	309.444	309.167	309.305	310.667	311.111	311.667	T 3
	T 4	312.083	311.833	311.500	309.444	309.167	309.305	310.667	311.111	311.667	T 4

Table B-3. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 48.01 Equivalent Rotor Speed = 4770.11 Equivalent Weight Flow = 10.727 kg/sec
Uniform Inlet
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	95.79	91.71	86.89	70.41	49.21	29.10	13.80	9.00	4.70	PCT SPAN
	DIA	0.425	0.432	0.439	0.464	0.495	0.526	0.549	0.556	0.562	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	12.312	12.026	11.817	11.882	12.836	13.164	13.799	14.137	14.437	BETA 2
	V 1	72.97	73.44	74.05	75.39	75.32	73.73	69.55	66.03	63.55	V 1
	V 2	81.55	82.84	85.87	84.92	84.80	82.75	79.48	77.79	76.75	V 2
	VZ 1	72.97	73.44	74.05	75.37	75.24	73.59	69.37	66.05	63.37	VZ 1
	VZ 2	79.67	81.02	84.03	83.02	82.45	80.15	76.61	74.81	73.65	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	17.39	17.26	17.58	17.47	18.79	18.75	18.62	18.64	18.96	V-THETA 2
	M 1	0.2154	0.2168	0.2186	0.2227	0.2224	0.2177	0.2052	0.1948	0.1874	M 1
	M 2	0.2410	0.2449	0.2540	0.2511	0.2507	0.2446	0.2349	0.2298	0.2267	M 2
	TURN	-12.31	-12.02	-11.81	-11.87	-12.80	-13.09	-13.69	-14.02	-14.30	TURN
	UUBAR	0.0541	0.0427	0.0210	0.0202	0.0101	0.0423	0.0596	0.0264	0.0	UUBAR
	DFAC	-0.022	-0.033	-0.063	-0.031	-0.022	-0.014	-0.025	-0.051	-0.072	DFAC
	EFFP	0.8244	0.8668	0.9437	0.9314	0.9642	0.8625	0.6466	0.9372	1.0000	EFFP
	INCID	5.9000	5.9200	5.9700	6.2500	6.6600	7.0000	7.3200	7.4200	7.4200	INCID
	DEVM	4.688	5.275	5.865	6.930	7.441	8.516	9.007	9.033	8.977	DEVM
	P 1	10.108	10.119	10.126	10.143	10.150	10.147	10.119	10.091	10.074	P 1
	P 2	10.091	10.105	10.119	10.136	10.147	10.133	10.101	10.084	10.074	P 2
	T 1	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 1
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	UUBAR FS										UUBAR FS
	P1 FS										P1 FS
	LOSS PARA FS										LOSS PARA FS

ROTOR F	PCT SPAN	95.01	89.99	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA	0.425	0.430	0.436	0.453	0.475	0.496	0.515	0.520	0.526	DIA
ROTOR -L.E.	BETA 2	9.830	9.757	9.627	9.746	10.484	10.752	11.292	11.573	11.793	BETA 2
ROTOR -T.E.	BETA 3	56.877	51.116	46.843	40.809	40.147	38.927	40.217	42.508	45.396	BETA 3
	BETA(PR) 2	41.324	41.673	41.123	42.904	44.413	46.075	48.917	49.888	50.619	BETA(PR) 2
	BETA(PR) 3	-15.295	-8.803	-4.873	3.025	10.369	15.416	19.293	21.195	23.054	BETA(PR) 3
	V 2	102.15	102.41	105.88	104.98	105.84	104.08	100.44	98.42	97.25	V 2
	V 3	154.52	156.14	162.32	161.29	151.46	147.82	141.22	135.57	129.26	V 3
	VZ 2	100.65	100.93	104.38	103.41	103.85	101.83	97.92	95.81	94.55	VZ 2
	VZ 3	84.24	99.05	110.97	122.03	115.65	114.75	107.51	99.62	90.47	VZ 3
	V-THETA 2	17.44	17.35	17.71	17.76	19.22	19.34	19.55	19.62	19.74	V-THETA 2
	V-THETA 3	129.12	122.63	118.35	109.37	97.55	92.69	90.91	91.31	91.73	V-THETA 3
	V(PR) 2	134.0	135.1	138.6	141.2	145.6	148.7	149.4	149.1	149.5	V(PR) 2
	V(PR) 3	88.0	100.8	111.5	122.4	117.8	119.4	114.4	107.4	99.3	V(PR) 3
	VTHETA PR2	-86.5	-89.6	-91.1	-96.1	-101.7	-108.0	-112.3	-113.7	-115.2	VTHETA PR2
	VTHETA PR3	23.0	19.3	9.5	-7.7	-21.2	-31.6	-37.6	-38.6	-39.6	VTHETA PR3
	U 2	105.94	107.19	108.84	113.87	120.97	127.30	131.87	133.35	134.92	U 2
	U 3	100.08	107.49	108.89	113.10	118.71	124.33	126.54	129.94	131.35	U 3
	M 2	0.3029	0.3037	0.3142	0.3115	0.3141	0.3088	0.2978	0.2917	0.2882	M 2
	M 3	0.4541	0.4655	0.4787	0.4765	0.4468	0.4358	0.4156	0.3984	0.3792	M 3
	M(PR) 2	0.3974	0.4007	0.4112	0.4190	0.4314	0.4411	0.4429	0.4419	0.4428	M(PR) 2
	M(PR) 3	0.2585	0.2967	0.3288	0.3615	0.3674	0.3571	0.3368	0.3156	0.2914	M(PR) 3
	TURN(PR)	50.510	50.427	45.989	39.266	34.000	31.167	29.545	28.620	26.904	TURN(PR)
	UUBAR	0.4039	0.2526	0.1093	-0.0360	0.0090	-0.0154	0.0278	0.0962	0.1732	UUBAR
	LOSS PARA	0.1255	0.0816	0.0361	-0.0124	0.0033	-0.0057	0.0105	0.0364	0.0653	LOSS PARA
	DFAC	0.6124	0.5096	0.4364	0.3475	0.3856	0.3843	0.4220	0.4712	0.5294	DFAC
	EFFP	0.6913	0.7859	0.8995	1.0306	0.9891	1.0202	0.9685	0.8984	0.8066	EFFP
	EFF	0.8869	0.7826	0.8978	1.0311	0.9890	1.0206	0.9680	0.8970	0.8043	EFF
	INCID	-14.326	-12.727	-12.879	-10.931	-10.098	-8.898	-7.926	-7.849	-8.583	INCID
	DEVM	18.715	17.340	15.133	11.623	8.152	5.865	7.899	10.181	13.913	DEVM
	P 2	10.091	10.105	10.119	10.136	10.147	10.133	10.101	10.084	10.074	P 2
	P 3	11.128	11.253	11.385	11.448	11.316	11.309	11.218	11.121	11.017	P 3
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	T 3	300.055	299.667	299.167	298.055	297.389	297.167	297.222	297.278	297.444	T 3

STATOR F	PCT SPAN	95.81	92.01	86.21	69.91	49.21	29.51	14.11	9.31	4.51	PCT SPAN
	DIA	0.423	0.427	0.432	0.448	0.468	0.487	0.502	0.506	0.511	DIA
STATOR-L.E.	BETA 3	56.880	50.791	46.396	40.200	39.408	38.262	39.535	41.803	44.656	BETA 3
STATOR-T.E.	BETA 4	10.375	9.657	8.492	8.349	8.445	8.558	9.251	8.659	7.920	BETA 4
	V 3	154.20	156.60	163.52	163.41	153.77	150.44	143.67	137.88	131.40	V 3
	V 4	127.93	133.47	142.18	150.14	145.06	141.89	138.48	136.32	132.84	V 4
	VZ 3	84.25	100.25	112.76	124.76	118.67	117.85	110.43	102.42	93.13	VZ 3
	VZ 4	129.83	131.57	140.59	149.14	143.97	139.96	136.10	134.06	130.73	VZ 4
	V-THETA 3	129.15	122.88	118.40	109.43	97.51	92.94	91.15	91.58	92.02	V-THETA 3
	V-THETA 4	23.04	22.39	20.99	18.59	18.26	21.06	22.17	20.42	18.19	V-THETA 4
	M 3	0.4531	0.4669	0.4825	0.4831	0.4539	0.4438	0.4231	0.4054	0.3857	M 3
	M 4	0.3735	0.3904	0.4171	0.4422	0.4272	0.4177	0.4073	0.4007	0.3900	M 4
	TURN(PR)	46.505	41.133	37.899	33.835	32.916	29.618	30.165	33.009	36.534	TURN(PR)
	UUBAR	0.0547	0.0669	0.0498	0.0103	0.0233	0.0973	0.1178	0.0877	0.0648	UUBAR
	LOSS PARA	0.0172	0.0213	0.0162	0.0035	0.0083	0.0363	0.0454	0.0342	0.0256	LOSS PARA
	DFAC	0.3909	0.3643	0.3270	0.2684	0.2489	0.2398	0.2272	0.2184	0.2172	DFAC
	EFFP	0.8379	0.7895	0.8238	0.9401	0.8056	0.7856	-0.5481	-2.6332	3.7490	EFFP
	INCID	-8.121	-8.611	-9.411	-12.119	-13.247	-14.395	-15.124	-17.077	-15.747	INCID
	DEVM	15.625	15.696	14.290	11.096	10.537	12.537	13.211	11.814	10.169	DEVM
	P 3	11.128	11.253	11.385	11.448	11.316	11.309	11.218	11.121	11.017	P 3
	P 4	11.048	11.149	11.302	11.431	11.281	11.170	11.065	11.017	10.947	P 4
	T 3	300.055	299.667	299.167	298.055	297.389	297.167	297.222	297.278	297.444	T 3
	T 4	300.055	299.667	299.167	298.055	297.389	297.167	297.222	297.278	297.444	T 4

ORIGINAL PAGE IS
OF POOR QUALITY

Table B-3. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 47.72 Equivalent Rotor Speed = 4741.84 Equivalent Weight Flow = 9.893 kg/sec
Uniform Inlet
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	95.79	91.71	86.89	70.41	49.21	29.10	13.80	4.00	4.70	PCT SPAN
	DIA	0.425	0.432	0.439	0.464	0.495	0.526	0.549	0.556	0.562	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	12.508	12.243	12.031	12.162	12.794	13.102	13.684	13.981	14.269	BETA 2
	V 1	69.21	69.19	69.51	70.79	71.71	69.54	64.58	62.14	60.72	V 1
	V 2	75.47	76.97	77.97	79.30	79.26	78.42	75.89	74.88	73.49	V 2
	VZ 1	69.21	69.19	69.50	70.77	71.64	69.42	64.42	62.15	60.54	VZ 1
	VZ 2	73.68	75.21	76.24	77.45	77.08	75.98	73.18	72.06	70.57	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	16.34	16.32	16.25	16.09	17.50	17.66	17.82	17.84	17.95	V-THETA 2
	M 1	0.2042	0.2042	0.2051	0.2089	0.2117	0.2052	0.1905	0.1834	0.1790	M 1
	M 2	0.2229	0.2273	0.2303	0.2343	0.2342	0.2317	0.2241	0.2211	0.2170	M 2
	TURN	-12.51	-12.24	-12.03	-12.15	-12.76	-13.03	-13.58	-13.86	-14.14	TURN
	UUBAR	0.0599	0.0312	0.0119	0.0114	0.0449	0.0355	0.0137	0.0145	0.0156	UUBAR
	DFAC	0.005	-0.017	-0.027	-0.024	-0.003	-0.019	-0.055	-0.063	-0.076	DFAC
	EFFP	0.7628	0.8857	0.9566	0.9578	0.8356	0.8863	0.9655	0.9868	0.9679	EFFP
	INCID	5.9000	5.9200	5.9700	6.2500	6.6600	7.0000	7.3200	7.4200	7.4200	INCID
	DEVM	4.493	5.058	5.651	6.650	7.482	8.578	9.121	9.188	9.144	DEVM
	P 1	10.108	10.114	10.119	10.136	10.153	10.146	10.115	10.105	10.091	P 1
	P 2	10.091	10.105	10.115	10.133	10.139	10.136	10.112	10.101	10.087	P 2
	T 1	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 1
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	UUBAR FS										UUBAR FS
	P1 FS										P1 FS
	LOSS PARA FS										LOSS PARA FS
ROTOR F	PCT SPAN	95.01	89.99	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA	0.425	0.430	0.436	0.453	0.475	0.498	0.515	0.520	0.526	DIA
ROTOR -L.E.	BETA 2	10.013	9.955	9.832	9.998	10.476	10.722	11.217	11.461	11.674	BETA 2
ROTOR -T.E.	BETA 3	58.102	52.882	49.057	43.153	41.971	41.256	43.738	45.100	46.806	BETA 3
	BETA(PR) 2	43.761	43.956	44.203	44.987	46.581	48.349	50.327	51.024	51.926	BETA(PR) 2
	BETA(PR) 3	-14.203	-8.617	-4.819	4.039	10.835	16.641	19.902	22.010	25.075	BETA(PR) 3
	V 2	94.29	94.92	95.83	97.81	98.69	98.45	95.75	94.61	92.98	V 2
	V 3	147.74	151.67	154.68	152.93	145.64	140.07	134.46	130.38	124.83	V 3
	VZ 2	92.85	93.49	94.42	96.27	96.85	96.33	93.37	92.14	90.43	VZ 2
	VZ 3	77.90	91.34	101.31	111.52	108.18	105.09	96.88	91.76	85.17	VZ 3
	V-THETA 2	16.39	16.41	16.36	16.97	17.91	18.24	18.52	18.68	18.68	V-THETA 2
	V-THETA 3	125.17	120.69	116.78	104.55	97.31	92.18	92.71	92.08	90.72	V-THETA 3
	V(PR) 2	126.6	129.9	131.7	136.2	141.0	145.2	146.6	146.9	147.0	V(PR) 2
	V(PR) 3	80.9	92.9	101.8	111.9	110.3	110.0	103.5	99.5	94.6	V(PR) 3
	VTHETA PR2	-68.9	-90.1	-91.8	-96.2	-102.3	-108.3	-112.6	-113.9	-115.4	VTHETA PR2
	VTHETA PR3	19.7	13.8	8.5	-7.9	-20.7	-31.4	-35.1	-37.1	-39.9	VTHETA PR3
	U 2	105.31	106.56	108.19	113.20	120.25	126.54	131.09	132.56	134.12	U 2
	U 3	105.45	106.85	108.24	112.43	118.01	123.59	127.78	129.17	130.57	U 3
	M 2	0.2792	0.2811	0.2839	0.2898	0.2925	0.2918	0.2836	0.2802	0.2753	M 2
	M 3	0.4336	0.4458	0.4554	0.4508	0.4289	0.4121	0.3944	0.3825	0.3658	M 3
	M(PR) 2	0.3807	0.3847	0.3902	0.4034	0.4180	0.4304	0.4343	0.4350	0.4354	M(PR) 2
	M(PR) 3	0.2375	0.2731	0.2996	0.3298	0.3249	0.3238	0.3040	0.2918	0.2771	M(PR) 3
	TURN(PR)	57.861	52.525	49.016	40.935	35.703	31.640	30.350	28.946	26.797	TURN(PR)
	UUBAR	0.3610	0.2245	0.1128	-0.0286	-0.0164	-0.0090	0.0513	0.0877	0.1317	UUBAR
	LOSS PARA	0.1127	0.0725	0.0373	-0.0099	-0.0059	-0.0033	0.0194	0.0331	0.0491	LOSS PARA
	DFAC	0.6432	0.5476	0.4802	0.4002	0.4215	0.4356	0.4933	0.5218	0.5543	DFAC
	EFFP	0.7341	0.8198	0.9090	1.0271	1.0116	1.0086	0.9426	0.8969	0.8449	EFFP
	EFF	0.7302	0.8170	0.9074	1.0275	1.0118	1.0087	0.9417	0.8954	0.8428	EFF
	INCID	-11.889	-10.444	-9.798	-8.848	-7.931	-7.124	-6.514	-6.712	-7.274	INCID
	DEVM	19.799	17.531	15.186	12.036	8.616	7.086	8.506	10.993	15.329	DEVM
	P 2	10.091	10.105	10.115	10.133	10.139	10.136	10.112	10.101	10.087	P 2
	P 3	11.163	11.282	11.379	11.424	11.351	11.306	11.240	11.177	11.091	P 3
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	T 3	299.722	299.444	299.028	297.944	297.500	297.222	297.555	297.611	297.555	T 3
STATOR F	PCT SPAN	95.81	92.01	86.21	69.91	49.21	29.51	14.11	9.31	4.51	PCT SPAN
	DIA	0.423	0.427	0.432	0.448	0.468	0.487	0.502	0.506	0.511	DIA
STATOR-L.E.	BETA 3	58.114	52.554	48.590	42.509	41.199	40.551	42.985	44.343	46.041	BETA 3
STATOR-T.E.	BETA 4	12.379	11.309	9.725	6.937	6.764	8.242	9.052	8.530	7.841	BETA 4
	V 3	147.44	152.09	155.79	154.69	147.82	142.50	136.74	132.57	126.87	V 3
	V 4	114.41	120.82	129.49	135.05	131.73	128.48	125.21	122.32	119.24	V 4
	VZ 3	77.88	92.47	103.04	114.14	111.10	108.04	99.73	94.50	87.76	VZ 3
	VZ 4	111.75	118.46	127.60	133.99	130.65	126.85	123.12	120.34	117.37	VZ 4
	V-THETA 3	125.19	120.75	116.83	104.62	97.26	92.44	92.95	92.36	91.01	V-THETA 3
	V-THETA 4	24.53	23.69	21.87	16.30	15.50	18.37	19.61	18.05	16.16	V-THETA 4
	M 3	0.4327	0.4471	0.4588	0.4569	0.4356	0.4195	0.4018	0.3891	0.3719	M 3
	M 4	0.3333	0.3526	0.3789	0.3964	0.3866	0.3770	0.3669	0.3582	0.3490	M 4
	TURN(PR)	45.735	41.244	38.860	35.557	34.389	32.221	33.610	35.675	38.048	TURN(PR)
	UUBAR	0.0515	0.0576	0.0272	0.0068	0.0250	0.0673	0.0939	0.0940	0.0722	UUBAR
	LOSS PARA	0.0161	0.0182	0.0088	0.0023	0.0089	0.0251	0.0362	0.0367	0.0285	LOSS PARA
	DFAC	0.4428	0.4130	0.3700	0.3244	0.3101	0.2972	0.2976	0.3025	0.2996	DFAC
	EFFP	0.8795	0.8554	0.9190	0.9.38	0.8875	0.6645	0.4546	0.4042	0.4149	EFFP
	INCID	-6.886	-6.849	-7.217	-9.810	-11.455	-14.108	-14.677	-14.539	-14.362	INCID
	DEVM	17.629	17.307	15.523	11.684	10.856	12.222	13.013	11.686	10.090	DEVM
	P 3	11.163	11.282	11.379	11.424	11.351	11.306	11.240	11.177	11.091	P 3
	P 4	11.094	11.198	11.337	11.413	11.316	11.219	11.129	11.073	11.018	P 4
	T 3	299.722	299.444	299.028	297.944	297.500	297.222	297.555	297.611	297.555	T 3
	T 4	299.722	299.444	299.028	297.944	297.500	297.222	297.555	297.611	297.555	T 4

Table B-3. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 47.88 Equivalent Rotor Speed = 4757.37 Equivalent Weight Flow = 9.141 kg/sec
Uniform Inlet
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	95.79	91.71	86.89	70.41	49.21	29.10	13.80	9.00	4.70	PCT SPAN
	DIA	0.425	0.432	0.439	0.464	0.495	0.526	0.549	0.556	0.562	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	12.447	12.097	11.907	11.984	12.743	13.146	13.759	14.130	14.420	BETA 2
	V 1	63.44	63.80	65.05	67.41	68.18	65.80	61.60	59.98	58.79	V 1
	V 2	70.54	71.71	72.71	73.37	73.93	72.24	69.38	68.21	67.74	V 2
	VZ 1	63.44	63.80	65.05	67.38	68.11	65.68	61.44	59.82	58.62	VZ 1
	VZ 2	68.88	70.11	71.13	71.70	71.91	69.98	66.88	65.60	65.00	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	15.20	15.03	15.00	15.22	16.26	16.34	16.38	16.51	16.71	V-THETA 2
	M 1	0.1871	0.1881	0.1919	0.1989	0.2012	0.1941	0.1816	0.1768	0.1733	M 1
	M 2	0.2082	0.2117	0.2147	0.2166	0.2183	0.2133	0.2047	0.2013	0.1998	M 2
	TURN	-12.45	-12.10	-11.90	-11.97	-12.71	-13.08	-13.65	-14.01	-14.26	TURN
	UUBAR	0.0285	0.0141	0.0136	0.0504	0.0369	0.0264	0.0151	0.0160	0.0	UUBAR
	DFAC	-0.015	-0.029	-0.024	0.004	0.015	0.008	-0.010	-0.015	-0.023	DFAC
	EFFP	0.8936	0.9494	0.9495	0.7881	0.8286	0.8872	0.9471	0.9487	0.9498	EFFP
	INCID	5.9000	5.9200	5.9700	6.2500	6.6600	7.0000	7.3200	7.4200	7.4200	INCID
	DEVM	4.553	5.204	5.775	6.828	7.533	8.534	9.046	9.029	8.994	DEVM
	P 1	10.105	10.112	10.122	10.143	10.154	10.140	10.112	10.101	10.094	P 1
	P 2	10.098	10.108	10.119	10.129	10.143	10.133	10.108	10.098	10.094	P 2
	T 1	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 1
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	UUBAR FS										UUBAR FS
	P1 FS										P1 FS
	LOSS PARA FS										LOSS PARA FS
ROTOR F	PCT SPAN	95.01	89.99	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA	0.425	0.430	0.436	0.453	0.475	0.498	0.515	0.520	0.526	DIA
ROTOR -L.E.	BETA 2	9.984	9.858	9.751	9.876	10.458	10.787	11.309	11.615	11.821	BETA 2
ROTOR -T.E.	BETA 3	60.873	56.379	52.706	46.232	45.741	45.511	47.478	48.993	51.941	BETA 3
	BETA(PR) 2	46.222	46.553	46.752	47.817	49.087	51.211	53.380	54.154	54.668	BETA(PR) 2
	BETA(PR) 3	-16.108	-10.091	-5.649	3.479	10.486	16.267	20.893	22.950	24.365	BETA(PR) 3
	V 2	87.96	88.26	89.1[illegible]	90.28	[illegible]1.85	90.45	87.29	85.95	85.50	V 2
	V 3	144.59	146.27	147.69	147.65	146.17	135.33	129.15	125.85	121.62	V 3
	VZ 2	86.63	86.95	87.89	88.89	90.13	88.40	85.10	83.66	83.12	VZ 2
	VZ 3	70.25	80.85	89.45	102.16	97.74	94.67	87.08	82.38	74.70	VZ 3
	V-THETA 2	15.25	15.11	15.10	15.48	16.64	16.86	17.02	17.14	17.40	V-THETA 2
	V-THETA 3	126.08	121.59	117.45	106.59	100.31	96.37	94.66	94.71	95.58	V-THETA 3
	V(PR) 2	125.2	126.4	128.3	132.4	137.8	141.5	143.0	143.2	144.0	V(PR) 2
	V(PR) 3	73.6	82.6	90.0	102.4	99.6	98.9	93.6	89.6	82.1	V(PR) 3
	VTHETA PR2	-90.4	-91.8	-93.4	-98.1	-104.0	-110.1	-114.5	-115.8	-117.2	VTHETA PR2
	VTHETA PR3	20.3	14.4	8.8	-6.2	-18.1	-27.6	-33.2	-34.9	-35.4	VTHETA PR3
	U 2	105.65	106.91	108.55	113.57	120.64	126.96	131.52	132.99	134.56	U 2
	U 3	105.79	107.20	108.60	112.80	118.40	124.00	128.20	129.60	131.00	U 3
	M 2	0.2602	0.2611	0.2639	0.2672	0.2719	0.2677	0.2582	0.2542	0.2525	M 2
	M 3	0.4239	0.4291	0.4338	0.4344	0.4118	0.3977	0.3785	0.3685	0.3557	M 3
	M(PR) 2	0.3704	0.3741	0.3796	0.3919	0.4078	0.4198	0.4229	0.4235	0.4255	M(PR) 2
	M(PR) 3	0.2159	0.2423	0.2643	0.3011	0.2925	0.2904	0.2744	0.2622	0.2431	M(PR) 3
	TURN(PR)	62.216	56.588	52.394	44.325	38.558	34.877	32.419	31.145	29.232	TURN(PR)
	UUBAR	0.3708	0.2718	0.1784	0.0116	0.0367	0.0825	0.1127	0.1215	0.1315	UUBAR
	LOSS PARA	0.1147	0.0874	0.0589	0.0040	0.0133	0.0144	0.0309	0.0422	0.0637	LOSS PARA
	DFAC	0.6972	0.6726	0.5632	0.4644	0.4971	0.5141	0.5600	0.5879	0.6417	DFAC
	EFFP	0.7443	0.7993	0.8648	0.9801	0.9596	0.9607	0.9184	0.8954	0.8214	EFFP
	EFF	0.7405	0.7961	0.8626	0.9866	0.9586	0.9601	0.9171	0.8941	0.8239	EFF
	INCID	-9.428	-7.847	-7.249	-6.018	-5.423	-4.350	-3.657	-3.578	-4.569	INCID
	DEVM	17.907	16.065	14.357	11.477	8.269	6.713	8.494	11.619	14.621	DEVM
	P 2	10.098	10.108	10.119	10.129	10.143	10.133	10.108	10.098	10.094	P 2
	P 3	11.214	11.284	11.350	11.430	11.360	11.336	11.266	11.221	11.162	P 3
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	T 3	300.000	299.722	299.305	298.389	298.055	297.944	298.055	298.194	298.333	T 3
STATOR F	PCT SPAN	95.81	92.01	86.21	69.91	49.21	29.51	14.11	9.31	4.51	PCT SPAN
	DIA	0.423	0.427	0.432	0.448	0.468	0.487	0.502	0.508	0.511	DIA
STATOR-L.E.	BETA 3	60.918	56.038	52.191	45.537	44.876	44.707	46.637	48.129	51.081	BETA 3
STATOR-T.E.	BETA 4	12.870	11.789	9.944	7.366	7.234	8.905	9.466	9.266	8.892	BETA 4
	V 3	144.31	146.67	148.73	148.49	142.93	137.64	131.31	127.93	123.59	V 3
	V 4	103.56	108.31	114.77	121.48	119.45	117.58	115.08	111.20	109.68	V 4
	VZ 3	70.14	81.93	91.17	104.87	100.69	97.63	89.92	85.19	77.41	VZ 3
	VZ 4	100.95	106.02	113.02	120.42	118.38	116.88	111.06	106.19	100.68	VZ 4
	V-THETA 3	126.11	121.64	117.46	106.66	100.26	96.64	94.21	95.60	96.56	V-THETA 3
	V-THETA 4	23.07	22.13	19.82	15.57	15.02	18.18	18.57	17.82	16.77	V-THETA 4
	M 3	0.4230	0.4304	0.4370	0.4400	0.4181	0.4042	0.3850	0.3747	0.3616	M 3
	M 4	0.3009	0.3152	0.3346	0.3582	0.3493	0.3438	0.3303	0.3246	0.3170	M 4
	TURN(PR)	48.048	44.248	42.242	38.158	37.598	36.719	37.021	38.729	42.004	TURN(PR)
	UUBAR	0.0509	0.0490	0.0299	0.0220	0.0189	0.0219	0.0226	0.0271	0.0644	UUBAR
	LOSS PARA	0.0159	0.0155	0.0097	0.0075	0.0068	0.0149	0.0318	0.0367	0.0256	LOSS PARA
	DFAC	0.5112	0.4820	0.4450	0.3971	0.3781	0.3639	0.3707	0.3721	0.3804	DFAC
	EFFP	0.9019	0.8998	0.9313	0.9400	0.9402	0.9201	0.6694	0.7014	0.7281	EFFP
	INCID	-4.083	-3.365	-3.616	-6.781	-7.779	-9.683	-11.026	-10.751	-9.217	INCID
	DEVM	18.120	17.788	15.742	12.117	11.325	12.883	13.454	12.423	11.179	DEVM
	P 3	11.214	11.284	11.350	11.430	11.360	11.336	11.266	11.221	11.162	P 3
	P 4	11.148	11.218	11.308	11.398	11.336	11.273	11.176	11.141	11.094	P 4
	T 3	300.000	299.722	299.305	298.389	298.055	297.944	298.055	298.194	298.333	T 3
	T 4	300.000	299.722	299.705	298.389	298.055	297.944	298.055	298.194	298.333	T 4

ORIGINAL PAGE IS
OF POOR QUALITY

Table B-3. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 47.73 Equivalent Rotor Speed = 4742.92 Equivalent Weight Flow = 8.468 kg/sec
Uniform Inlet
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	95.79	91.71	86.89	70.41	49.21	29.10	13.80	9.00	4.70	PCT SPAN
	DIA	0.425	0.432	0.439	0.464	0.495	0.526	0.549	0.556	0.562	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	12.452	12.188	12.009	12.064	12.790	13.375	14.054	14.510	14.865	BETA 2
	V 1	59.74	60.20	60.57	61.54	60.40	58.88	56.29	55.05	53.80	V 1
	V 2	65.33	66.84	67.91	69.34	68.88	67.69	65.02	63.42	62.54	V 2
	VZ 1	59.74	60.20	60.56	61.52	60.34	58.88	56.15	54.90	53.64	VZ 1
	VZ 2	63.79	65.32	66.41	67.74	66.98	65.51	62.60	60.85	59.60	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	14.09	14.11	14.13	14.48	15.21	15.58	15.67	15.76	15.90	V-THETA 2
	M 1	0.1761	0.1775	0.1785	0.1814	0.1781	0.1739	0.1659	0.1622	0.1585	M 1
	M 2	0.1927	0.1972	0.2004	0.2046	0.2032	0.1997	0.1918	0.1870	0.1844	M 2
	TURN	-12.45	-12.19	-12.01	-12.05	-12.75	-13.30	-13.95	-14.39	-14.73	TURN
	UUBAR	0.1279	0.0944	0.0822	0.0301	0.0	0.0	0.0360	0.0753	0.0789	UUBAR
	DFAC	0.002	-0.016	-0.027	-0.030	-0.035	-0.035	-0.034	-0.024	-0.028	DFAC
	EFFP	0.6079	0.7142	0.8072	0.9007	0.9995	0.9997	0.9037	0.8146	0.8183	EFFP
	INCID	5.9000	5.9200	5.9700	6.2500	6.6600	7.0000	7.3200	7.4200	7.4200	INCID
	DEVM	4.548	5.114	5.674	6.748	7.487	8.306	8.754	8.663	8.554	DEVM
	P 1	10.121	10.128	10.132	10.142	10.139	10.135	10.121	10.114	10.107	P 1
	P 2	10.094	10.107	10.118	10.135	10.139	10.135	10.114	10.100	10.094	P 2
	T 1	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 1
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	UUBAR FS										UUBAR FS
	P1 FS										P1 FS
	LOSS PARA FS										LOSS PARA FS
ROTOR F	PCT SPAN	95.01	89.99	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA	0.425	0.430	0.436	0.453	0.475	0.498	0.515	0.520	0.526	DIA
ROTOR -L.E.	BETA 2	10.006	9.947	9.849	9.956	10.515	10.993	11.569	11.946	12.210	BETA 2
ROTOR -T.E.	BETA 3	61.833	58.006	54.493	47.503	46.639	46.112	50.165	52.093	53.630	BETA 3
	BETA(PR) 2	48.720	48.797	48.922	49.589	51.332	53.185	55.284	56.276	56.960	BETA(PR) 2
	BETA(PR) 3	-16.037	-10.566	-5.998	3.418	10.474	16.657	20.207	21.582	24.209	BETA(PR) 3
	V 2	81.31	82.13	83.16	85.19	84.61	81.69	76.77	78.80	V 2	
	V 3	141.65	142.86	143.83	144.65	138.13	133.42	127.62	124.87	122.01	V 3
	VZ 2	80.07	80.89	81.93	83.87	83.80	82.71	79.56	77.55	76.44	VZ 2
	VZ 3	66.75	75.57	83.51	97.69	94.76	92.34	81.57	76.55	72.18	VZ 3
	V-THETA 2	14.13	14.19	14.22	14.72	15.56	16.07	16.29	16.41	16.55	V-THETA 2
	V-THETA 3	124.66	120.97	117.04	106.62	100.35	95.99	97.78	98.30	98.01	V-THETA 3
	V(PR) 2	121.4	122.8	124.7	129.4	134.2	138.2	140.0	140.0	140.6	V(PR) 2
	V(PR) 3	69.9	77.3	84.1	97.9	96.6	96.7	87.3	83.0	79.6	V(PR) 3
	VTHETA PR2	-91.2	-92.4	-94.0	-98.5	-104.7	-110.5	-114.8	-116.2	-117.6	VTHETA PR2
	VTHETA PR3	19.2	14.1	8.8	-5.6	-17.7	-27.6	-30.0	-30.9	-32.6	VTHETA PR3
	U 2	105.33	106.58	108.22	113.23	120.28	126.57	131.12	132.59	134.15	U 2
	U 3	105.47	106.87	108.27	112.46	118.04	123.62	127.81	129.20	130.60	U 3
	M 2	0.2403	0.2428	0.2459	0.2519	0.2526	0.2502	0.2414	0.2357	0.2328	M 2
	M 3	0.4150	0.4188	0.4220	0.4251	0.4055	0.3914	0.3736	0.3652	0.3566	M 3
	M(PR) 2	0.3587	0.3630	0.3686	0.3827	0.3970	0.4088	0.4137	0.4136	0.4154	M(PR) 2
	M(PR) 3	0.2049	0.2266	0.2466	0.2878	0.2835	0.2837	0.2556	0.2427	0.2328	M(PR) 3
	TURN(PR)	64.643	59.305	54.912	46.158	40.715	36.464	35.011	34.236	32.616	TURN(PR)
	UUBAR	0.3784	0.2953	0.2120	0.0305	0.0333	0.0302	0.1151	0.1470	0.1722	UUBAR
	LOSS PARA	0.1171	0.0948	0.0699	0.0106	0.0120	0.0112	0.0434	0.0554	0.0646	LOSS PARA
	DFAC	0.7173	0.6551	0.5994	0.4883	0.5004	0.5205	0.6058	0.6407	0.6673	DFAC
	EFFP	0.7520	0.7942	0.8482	0.9706	0.9612	0.9673	0.8932	0.8657	0.8401	EFFP
	EFF	0.7482	0.7910	0.8457	0.9701	0.9606	0.9667	0.8916	0.8636	0.8376	EFF
	INCID	-6.930	-5.603	-5.080	-4.246	-3.178	-2.383	-1.549	-1.449	-2.229	INCID
	DEVM	17.977	15.592	14.009	11.418	8.357	7.102	8.810	10.965	14.556	DEVM
	P 2	10.094	10.107	10.118	10.135	10.139	10.135	10.114	10.100	10.094	P 2
	P 3	11.216	11.275	11.327	11.424	11.375	11.354	11.292	11.257	11.223	P 3
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	T 3	299.944	299.722	299.333	298.500	298.194	298.000	298.500	298.667	298.750	T 3
STATOR F	PCT SPAN	95.81	92.01	86.21	69.91	49.21	29.51	14.11	9.31	4.51	PCT SPAN
	DIA	0.423	0.427	0.432	0.448	0.468	0.487	0.502	0.506	0.511	DIA
STATOR-L.E.	BETA 3	61.889	57.659	53.953	46.778	45.753	45.297	49.246	51.136	52.665	BETA 3
STATOR-T.E.	BETA 4	12.405	11.917	11.077	9.175	9.123	10.220	10.546	10.508	10.443	BETA 4
	V 3	141.37	143.25	144.83	146.45	140.15	135.69	129.74	126.95	123.99	V 3
	V 4	93.59	98.30	103.31	111.91	109.83	108.38	105.28	103.22	100.97	V 4
	VZ 3	66.61	76.63	85.22	100.26	97.70	95.26	84.49	79.45	75.00	VZ 3
	VZ 4	91.40	96.17	101.36	110.42	108.31	106.40	103.06	100.96	98.67	VZ 4
	V-THETA 3	124.69	121.03	117.09	106.69	100.30	96.26	98.04	98.60	98.33	V-THETA 3
	V-THETA 4	20.10	20.30	19.84	17.83	17.39	19.18	19.19	18.73	18.19	V-THETA 4
	M 3	0.4141	0.4200	0.4251	0.4306	0.4117	0.3983	0.3800	0.3714	0.3625	M 3
	M 4	0.2715	0.2855	0.3005	0.3265	0.3205	0.3163	0.3068	0.3006	0.2939	M 4
	TURN(PR)	49.484	45.740	42.871	37.589	36.585	34.992	38.584	40.505	42.092	TURN(PR)
	UUBAR	0.0499	0.0457	0.0366	0.0253	0.0332	0.0589	0.0712	0.0745	0.0782	UUBAR
	LOSS PARA	0.0156	0.0144	0.0118	0.0086	0.0118	0.0219	0.0273	0.0289	0.0307	LOSS PARA
	DFAC	0.5750	0.5422	0.5082	0.4447	0.4316	0.4186	0.4301	0.4397	0.4481	DFAC
	EFFP	0.9165	0.9191	0.9303	0.9434	0.9195	0.8468	0.8029	0.7915	0.7792	EFFP
	INCID	-3.112	-1.744	-1.854	-5.541	-6.902	-9.362	-8.415	-7.741	-7.731	INCID
	DEVM	17.655	17.916	16.875	13.920	13.212	14.196	14.501	13.654	12.677	DEVM
	P 3	11.216	11.275	11.327	11.424	11.375	11.354	11.292	11.257	11.223	P 3
	P 4	11.153	11.216	11.278	11.389	11.334	11.285	11.216	11.181	11.147	P 4
	T 3	299.944	299.722	299.333	298.500	298.194	298.000	298.500	298.667	298.750	T 3
	T 4	299.944	299.722	299.333	298.500	298.194	298.000	298.500	298.667	298.750	T 4

Table B-3. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 47.88 Equivalent Rotor Speed = 4757.51 Equivalent Weight Flow = 7.727 kg/sec
Uniform Inlet
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	95.79	91.71	86.89	70.41	49.21	29.10	13.80	9.00	4.70	PCT SPAN
	DIA	0.425	0.432	0.439	0.464	0.495	0.526	0.549	0.556	0.562	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	12.262	11.998	11.776	11.982	12.642	12.969	13.765	14.255	14.641	BETA 2
	V 1	51.83	52.39	53.26	54.61	54.55	53.18	47.68	46.02	44.56	V 1
	V 2	58.09	59.09	59.96	61.86	62.25	61.49	58.91	58.05	57.18	V 2
	VZ 1	51.83	52.39	53.25	54.59	54.49	53.08	47.56	45.90	44.43	VZ 1
	VZ 2	56.76	57.80	58.69	60.46	60.57	59.61	56.79	55.80	54.82	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	12.34	12.28	12.24	12.83	13.59	13.73	13.91	14.18	14.32	V-THETA 2
	M 1	0.1527	0.1543	0.1569	0.1609	0.1607	0.1567	0.1404	0.1355	0.1312	M 1
	M 2	0.1712	0.1742	0.1768	0.1824	0.1835	0.1813	0.1736	0.1711	0.1685	M 2
	TURN	-12.26	-12.00	-11.77	-11.97	-12.61	-12.90	-13.66	-14.13	-14.50	TURN
	UUBAR	0.0425	0.0415	0.0402	0.0191	0.0191	0.0402	0.0	0.0	0.0	UUBAR
	DFAC	-0.025	-0.033	-0.033	-0.037	-0.037	-0.046	-0.108	-0.124	-0.137	DFAC
	EFFP	0.8583	0.8687	0.8708	0.9376	0.9410	0.8945	0.8999	0.8998	0.8996	EFFP
	INCID	5.9000	5.9200	5.9700	6.2500	6.6600	7.0000	7.3200	7.4200	7.4200	INCID
	DEVM	4.739	5.303	5.906	6.830	7.634	8.710	9.041	8.916	8.776	DEVM
	P 1	10.110	10.117	10.124	10.158	10.144	10.144	10.117	10.110	10.103	P 1
	P 2	10.103	10.110	10.117	10.134	10.141	10.138	10.117	10.110	10.103	P 2
	T 1	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 1
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	UUBAR FS										UUBAR FS
	P1 FS										P1 FS
	LOSS PARA FS										LOSS PARA FS
ROTOR F	PCT SPAN	95.01	89.99	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA	0.425	0.430	0.436	0.453	0.475	0.496	0.515	0.520	0.526	DIA
ROTOR -L.E.	BETA 2	9.877	9.816	9.683	9.611	10.418	10.687	11.355	11.718	12.046	BETA 2
ROTOR -T.E.	BETA 3	63.722	60.270	56.945	48.358	48.105	47.736	51.942	55.209	58.338	BETA 3
	BETA(PR) 2	52.699	52.948	53.114	53.397	54.696	56.360	58.404	59.046	59.723	BETA(PR) 2
	BETA(PR) 3	-15.069	-9.849	-5.807	5.122	12.452	18.831	22.938	24.470	27.058	BETA(PR) 3
	V 2	72.14	72.45	73.26	75.84	77.02	76.70	73.76	72.90	71.92	V 2
	V 3	136.28	137.23	138.80	139.04	137.87	128.12	122.64	120.13	117.26	V 3
	VZ 2	71.07	71.39	72.21	74.67	75.59	75.06	71.64	70.82	69.86	VZ 2
	VZ 3	60.25	67.96	75.68	92.35	88.66	86.03	75.39	68.41	61.44	VZ 3
	V-THETA 2	12.37	12.35	12.32	13.05	13.90	14.16	14.46	14.76	14.91	V-THETA 2
	V-THETA 3	122.02	114.00	116.30	103.67	98.83	94.66	96.30	98.47	99.62	V-THETA 3
	V(PR) 2	117.3	118.5	120.3	124.2	130.9	134.7	137.7	138.1	138.8	V(PR) 2
	V(PR) 3	62.8	69.4	76.2	92.8	90.9	91.2	82.2	75.5	69.4	V(PR) 3
	VTHETA PR2	-93.3	-94.6	-96.2	-100.5	-106.7	-112.8	-117.1	-118.2	-119.7	VTHETA PR2
	VTHETA PR3	16.2	11.8	7.7	-8.9	-19.6	-29.3	-31.9	-31.1	-31.4	VTHETA PR3
	U 2	105.66	106.91	108.55	113.17	120.65	126.96	131.52	133.00	134.47	U 2
	U 3	105.80	107.70	108.60	112.80	118.40	124.00	128.20	129.60	131.00	U 3
	M 2	0.2129	0.2139	0.2163	0.2240	0.2275	0.2266	0.2181	0.2152	0.2123	M 2
	M 3	0.3988	0.4018	0.4066	0.4091	0.3996	0.3753	0.3583	0.3506	0.3421	M 3
	M(PR) 2	0.3462	0.3498	0.3552	0.3699	0.3866	0.4007	0.4065	0.4077	0.4097	M(PR) 2
	M(PR) 3	0.1839	0.2030	0.2231	0.2725	0.2667	0.2671	0.2404	0.2206	0.2024	M(PR) 3
	TURN(PR)	67.660	62.744	58.914	47.664	42.207	37.476	34.423	34.835	32.641	TURN(PR)
	UUBAR	0.2787	0.2938	0.2165	0.0059	0.0225	0.0250	0.1053	0.1582	0.2036	UUBAR
	LOSS PARA	0.1178	0.0946	0.0714	0.0014	0.0081	0.0064	0.0389	0.0585	0.0746	LOSS PARA
	DFAC	0.7656	0.7092	0.6637	0.5089	0.5403	0.5534	0.6379	0.6851	0.7468	DFAC
	EFFP	0.7696	0.8098	0.8566	0.9854	0.9738	0.9721	0.9085	0.8712	0.8271	EFFP
	EFF	0.7661	0.8068	0.8542	0.9812	0.9734	0.9716	0.9069	0.8691	0.8244	EFF
	INCID	-2.951	-1.451	-0.887	-0.437	0.169	0.796	1.584	1.378	0.564	INCID
	DEVM	18.939	16.306	14.194	13.418	10.231	9.269	11.531	13.443	17.363	DEVM
	P 2	10.103	10.110	10.117	10.134	10.141	10.138	10.117	10.110	10.103	P 2
	P 3	11.243	11.302	11.367	11.440	11.300	11.378	11.372	11.265	11.260	P 3
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	T 3	299.833	299.722	299.500	298.444	298.222	298.111	298.556	298.833	299.167	T 3
STATOR F	PCT SPAN	94.81	92.01	86.21	69.61	49.21	29.51	14.11	9.31	4.91	PCT SPAN
	DIA	0.423	0.427	0.432	0.448	0.468	0.487	0.502	0.506	0.511	DIA
STATOR-L.E.	BETA 3	63.802	59.914	56.366	47.626	47.188	46.886	50.977	54.161	57.265	BETA 3
STATOR-T.E.	BETA 4	16.930	16.162	14.733	12.102	11.763	11.878	12.116	12.674	11.946	BETA 4
	V 3	136.02	137.80	139.75	140.73	134.77	130.76	124.56	122.09	119.14	V 3
	V 4	85.37	88.40	95.61	103.40	101.30	99.21	98.38	98.09	93.67	V 4
	VZ 3	60.05	68.58	77.40	94.87	91.51	88.87	78.25	71.33	64.40	VZ 3
	VZ 4	81.67	85.86	92.45	101.05	96.29	96.86	93.83	92.42	91.07	VZ 4
	V-THETA 3	122.05	119.04	116.34	103.44	98.78	94.92	96.56	98.76	99.64	V-THETA 3
	V-THETA 4	24.86	24.86	24.31	21.67	19.74	20.37	20.14	19.76	19.27	V-THETA 4
	M 3	0.3980	0.4029	0.4095	0.4133	0.3854	0.3618	0.3563	0.3568	0.3477	M 3
	M 4	0.2474	0.2593	0.2777	0.3019	0.2952	0.2880	0.2804	0.2765	0.2722	M 4
	TURN(PR)	46.873	43.751	41.620	35.512	35.582	34.990	38.394	41.497	45.150	TURN(PR)
	UUBAR	0.0447	0.0522	0.0364	0.0273	0.0347	0.0636	0.0856	0.0858	0.0537	UUBAR
	LOSS PARA	0.0137	0.0162	0.0115	0.0041	0.0126	0.0235	0.0167	0.0253	0.0209	LOSS PARA
	DFAC	0.6013	0.5727	0.5332	0.4666	0.4819	0.4574	0.4701	0.4811	0.4886	DFAC
	EFFP	0.9304	0.9149	0.8988	0.9445	0.9228	0.8566	0.8345	0.8413	0.8658	EFFP
	INCID	-1.198	0.512	0.669	-4.693	-5.469	-7.771	-6.682	-4.711	-3.134	INCID
	DEVM	22.179	22.161	20.430	16.846	15.349	15.849	16.064	17.211	14.178	DEVM
	P 3	11.243	11.302	11.367	11.440	11.300	11.378	11.372	11.265	11.260	P 3
	P 4	11.191	11.239	11.312	11.406	11.267	11.309	11.263	11.202	11.212	P 4
	T 3	299.833	299.722	299.500	298.444	298.222	298.111	298.556	298.833	299.167	T 3
	T 4	299.833	299.722	299.500	298.444	298.222	298.111	298.556	298.833	299.167	T 4

ORIGINAL PAGE IS
OF POOR QUALITY

Table B-3. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 47.58 Equivalent Rotor Speed = 4727.50 Equivalent Weight Flow = 6.917 kg/sec
Uniform Inlet
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	95.79	91.71	86.89	70.41	49.21	29.10	13.80	9.00	4.76	PCT SPAN
	DIA	0.425	0.432	0.439	0.464	0.495	0.526	0.549	0.556	0.562	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	12.533	12.162	11.897	11.793	12.739	13.355	13.248	13.671	14.006	BETA 2
	V 1	44.12	45.04	46.31	48.50	49.20	46.83	43.25	40.37	38.57	V 1
	V 2	49.84	50.96	51.86	53.07	53.10	52.15	49.53	47.41	46.88	V 2
	VZ 1	44.11	45.04	46.30	48.48	49.15	46.75	43.14	40.26	38.46	VZ 1
	VZ 2	48.65	49.81	50.74	51.90	51.65	50.48	47.85	45.70	44.45	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	10.82	10.73	10.64	10.64	11.66	11.98	11.26	11.12	11.71	V-THETA 2
	M 1	0.1299	0.1326	0.1363	0.1428	0.1449	0.1379	0.1273	0.1188	0.1134	M 1
	M 2	0.1468	0.1501	0.1528	0.1563	0.1564	0.1536	0.1459	0.1396	0.1380	M 2
	TURN	-12.53	-12.16	-11.89	-11.78	-12.70	-13.28	-13.15	-13.56	-14.47	TURN
	UUBAR	0.0	0.0	0.0	0.0242	0.0469	0.0	0.0	0.0	0.0	UUBAR
	DFAC	-0.031	-0.035	-0.026	-0.003	0.020	-0.004	-0.032	-0.052	-0.050	DFAC
	EFFP	0.9994	0.9996	0.9997	0.8916	0.7802	0.9996	0.9996	0.9994	0.9994	EFFP
	INCID	5.9000	5.9200	5.9700	6.2500	6.6600	7.0000	7.3200	7.4200	7.4200	INCID
	DEVM	4.467	5.139	5.785	7.019	7.537	8.326	9.554	9.495	8.810	DEVM
	P 1	10.112	10.119	10.126	10.140	10.147	10.136	10.119	10.105	10.102	P 1
	P 2	10.112	10.119	10.126	10.136	10.140	10.136	10.119	10.105	10.102	P 2
	T 1	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 1
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	UUBAR FS										UUBAR FS
	P1 FS										P1 FS
	LOSS PARA FS										LOSS PARA FS
ROTOR F	PCT SPAN	95.01	89.99	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA	0.425	0.430	0.436	0.453	0.475	0.498	0.515	0.520	0.526	DIA
ROTOR -L.E.	BETA 2	10.117	9.970	9.802	9.778	10.524	11.029	10.961	11.313	12.054	BETA 2
ROTOR -T.E.	BETA 3	65.683	62.129	58.624	49.855	50.016	51.128	56.326	58.386	60.125	BETA 3
	BETA(PR) 2	57.145	57.244	57.314	57.814	59.216	60.872	63.067	64.368	64.830	BETA(PR) 2
	BETA(PR) 3	-18.520	-12.756	-8.265	3.021	11.277	18.116	21.316	22.610	24.026	BETA(PR) 3
	V 2	61.76	62.35	63.23	64.91	65.54	64.88	61.94	59.38	56.80	V 2
	V 3	136.12	137.06	138.72	139.25	131.65	125.41	121.69	120.56	119.03	V 3
	VZ 2	60.80	61.41	62.31	63.94	64.30	63.41	60.45	57.86	57.11	VZ 2
	VZ 3	55.98	64.00	72.21	89.75	84.53	78.60	67.36	63.10	59.19	VZ 3
	V-THETA 2	10.85	10.79	10.76	11.02	11.95	12.36	11.71	11.57	12.19	V-THETA 2
	V-THETA 3	123.88	121.01	118.40	106.41	100.80	97.50	101.11	102.51	103.04	V-THETA 3
	V(PR) 2	112.1	113.5	115.4	120.3	125.7	130.4	133.6	133.9	134.4	V(PR) 2
	V(PR) 3	59.4	66.0	73.0	90.0	86.3	83.0	72.6	68.7	65.5	V(PR) 3
	VTHETA PR2	-94.1	-95.4	-97.1	-101.6	-107.9	-113.8	-119.0	-120.6	-121.5	VTHETA PR2
	VTHETA PR3	18.8	14.5	10.5	-5.7	-16.9	-25.7	-26.3	-26.3	-27.1	VTHETA PR3
	U 2	104.99	106.24	107.86	112.86	119.89	126.16	130.69	132.16	133.72	U 2
	U 3	105.13	106.53	107.92	112.09	117.65	123.22	127.39	128.78	130.16	U 3
	M 2	0.1821	0.1838	0.1865	0.1914	0.1933	0.1913	0.1826	0.1750	0.1733	M 2
	M 3	0.3982	0.4011	0.4062	0.4085	0.3857	0.3669	0.3552	0.3517	0.3476	M 3
	M(PR) 2	0.3304	0.3346	0.3402	0.3547	0.3708	0.3846	0.3940	0.3947	0.3963	M(PR) 2
	M(PR) 3	0.1739	0.1931	0.2139	0.2640	0.2529	0.2427	0.2120	0.2004	0.1909	M(PR) 3
	TURN(PR)	75.534	69.930	65.569	54.247	47.904	42.710	41.712	41.729	40.190	TURN(PR)
	UUBAR	0.4259	0.3355	0.2531	0.0238	0.0557	0.0921	0.1900	0.2149	0.2310	UUBAR
	LOSS PARA	0.1301	0.1069	0.0831	0.0082	0.0200	0.0339	0.0711	0.0806	0.0863	LOSS PARA
	DFAC	0.7947	0.7365	0.6764	0.5255	0.5694	0.6126	0.7208	0.7585	0.7862	DFAC
	EFFP	0.7724	0.8118	0.8536	0.9866	0.9582	0.9290	0.8562	0.8437	0.8298	EFFP
	EFF	0.7688	0.8087	0.8511	0.9863	0.9574	0.9279	0.8538	0.8411	0.8270	EFF
	INCID	1.495	2.844	3.312	4.045	4.712	5.317	6.257	6.670	5.671	INCID
	DEVM	15.510	13.413	11.743	11.618	9.058	8.557	9.915	11.590	14.881	DEVM
	P 2	10.112	10.119	10.126	10.136	10.140	10.136	10.119	10.105	10.102	P 2
	P 3	11.280	11.339	11.394	11.484	11.419	11.374	11.353	11.349	11.334	P 3
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	T 3	300.055	299.944	299.778	298.778	298.555	298.555	299.444	299.722	299.861	T 3
STATOR F	PCT SPAN	95.81	92.01	86.21	69.91	49.21	29.51	14.11	9.31	4.51	PCT SPAN
	DIA	0.423	0.427	0.432	0.448	0.468	0.487	0.502	0.506	0.511	DIA
STATOR-L.E.	BETA 3	65.796	61.761	58.009	49.082	49.038	50.183	55.199	57.206	58.905	BETA 3
STATOR-T.E.	BETA 4	19.025	18.278	17.022	14.021	13.073	13.325	13.412	13.324	13.255	BETA 4
	V 3	135.85	137.43	139.67	140.95	133.53	127.49	123.68	122.53	120.95	V 3
	V 4	75.90	80.45	86.92	95.48	92.79	89.99	91.14	91.41	90.96	V 4
	VZ 3	55.70	65.02	73.99	92.29	87.46	81.51	70.46	66.24	62.35	VZ 3
	VZ 4	71.75	76.38	83.10	92.59	90.28	87.37	88.28	88.50	88.01	VZ 4
	V-THETA 3	123.91	121.07	118.45	106.48	100.75	97.77	101.37	102.81	103.37	V-THETA 3
	V-THETA 4	24.74	25.23	25.44	23.12	20.96	20.69	21.05	20.96	20.73	V-THETA 4
	M 3	0.3974	0.4022	0.4091	0.4137	0.3914	0.3732	0.3612	0.3576	0.3527	M 3
	M 4	0.2196	0.2330	0.2520	0.2777	0.2698	0.2616	0.2646	0.2652	0.2639	M 4
	TURN(PR)	46.772	43.482	40.984	35.050	35.925	36.782	41.691	43.784	45.555	TURN(PR)
	UUBAR	0.0864	0.0927	0.0782	0.0706	0.0636	0.0731	0.0567	0.0542	0.0519	UUBAR
	LOSS PARA	0.0261	0.0285	0.0245	0.0234	0.0223	0.0268	0.0215	0.0208	0.0201	LOSS PARA
	DFAC	0.6752	0.6413	0.5975	0.5264	0.5227	0.5255	0.5213	0.5225	0.5254	DFAC
	EFFP	0.8810	0.8665	0.8797	0.8774	0.8838	0.8616	0.8820	0.8837	0.8861	EFFP
	INCID	0.796	2.359	2.202	-3.236	-3.617	-4.475	-2.454	-1.660	-1.474	INCID
	DEVM	24.274	24.276	22.819	18.764	17.158	17.293	17.355	16.456	15.471	DEVM
	P 3	11.280	11.339	11.394	11.484	11.419	11.374	11.353	11.349	11.339	P 3
	P 4	11.179	11.228	11.297	11.394	11.346	11.297	11.297	11.297	11.290	P 4
	T 3	300.055	299.944	299.778	298.778	298.555	298.555	299.444	299.722	299.861	T 3
	T 4	300.055	299.944	299.778	298.778	298.555	298.555	299.444	299.722	299.861	T 4

Table B-4. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 100.06 Equivalent Rotor Speed = 9941.89 Equivalent Weight Flow = 40.231 lb/sec
Uniform Inlet
U.S. Customary Units

INLET GUIDE VANE	PCT SPAN	95.79	91.71	86.89	70.41	49.21	29.10	13.80	9.00	4.70	PCT SPAN
	DIA	16.749	16.991	17.276	18.252	19.507	20.697	21.603	21.887	22.142	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	12.417	12.059	11.759	11.913	13.162	13.307	13.943	14.498	15.365	BETA 2
	V 1	438.50	434.64	436.50	438.92	440.42	428.96	402.38	387.39	376.62	V 1
	V 2	497.23	503.11	507.72	511.10	507.90	497.75	481.06	473.10	465.06	V 2
	VZ 1	438.49	434.62	436.47	438.75	439.96	428.18	401.37	386.34	375.51	VZ 1
	VZ 2	485.58	491.96	496.96	499.60	493.19	481.86	463.37	454.24	444.37	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	106.92	105.10	103.45	105.40	115.33	113.96	115.04	117.45	122.10	V-THETA 2
	M 1	0.3990	0.3953	0.3971	0.3994	0.4008	0.3900	0.3652	0.3512	0.3412	M 1
	M 2	0.4545	0.4601	0.4647	0.4646	0.4550	0.4391	0.4216	0.4240	0.4240	M 2
	TURN	-12.42	-12.06	-11.76	-11.90	-13.12	-13.24	-13.84	-14.37	-15.22	TURN
	UUBAR	0.0679	0.0414	0.0205	0.0067	0.0200	0.0351	0.0401	0.0304	0.0461	UUBAR
	DFAC	-0.036	-0.060	-0.067	-0.066	-0.044	-0.047	-0.071	-0.086	-0.088	DFAC
	EFFP	0.8187	0.8981	0.9487	0.9828	0.9467	0.9137	0.9197	0.9446	0.9233	EFFP
	INCID	5.9000	5.9200	5.9700	6.2500	6.6600	7.0000	7.3200	7.4200	7.4200	INCID
	DEVM	4.583	5.243	5.923	6.899	7.116	8.374	8.864	8.675	8.058	DEVM
	P 1	14.636	14.647	14.667	14.719	14.781	14.760	14.626	14.538	14.461	P 1
	P 2	14.533	14.585	14.636	14.708	14.750	14.708	14.574	14.502	14.430	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	UUBAR FS										UUBAR FS
	P1 FS										P1 FS
	LOSS PARA FS										LOSS PARA FS

ROTOR F	PCT SPAN	95.01	89.99	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA	16.721	16.943	17.164	17.828	18.713	19.598	20.262	20.483	20.705	DIA
ROTOR -L.E.	BETA 2	9.269	9.182	8.997	9.143	10.025	10.145	10.705	11.164	11.638	BETA 2
ROTOR -T.E.	BETA 3	66.297	61.453	58.456	49.317	48.930	48.846	50.565	52.130	53.960	BETA 3
	BETA(PR) 2	43.206	43.814	44.210	45.238	46.739	48.892	51.041	51.673	52.673	BETA(PR) 2
	BETA(PR) 3	-20.555	-12.591	-7.885	5.927	13.432	19.800	22.600	23.692	25.144	BETA(PR) 3
	V 2	665.76	662.32	666.18	674.85	679.15	670.18	647.44	635.67	624.05	V 2
	V 3	949.46	953.69	955.12	936.56	861.93	860.17	849.59	841.21	839.42	V 3
	VZ 2	657.07	653.83	657.95	665.93	667.36	656.96	632.46	619.68	606.59	VZ 2
	VZ 3	381.21	455.16	499.54	610.34	585.56	565.20	538.52	515.24	496.86	VZ 3
	V-THETA 2	107.24	105.68	104.17	107.17	117.98	117.55	119.56	122.30	127.12	V-THETA 2
	V-THETA 3	868.30	836.65	813.75	710.02	671.93	646.67	654.79	662.57	669.12	V-THETA 3
	V(PR) 2	901.5	906.1	917.9	946.0	974.8	1001.1	1009.3	1006.2	1003.0	V(PR) 2
	V(PR) 3	409.8	468.9	504.8	614.0	603.0	602.6	585.9	565.4	541.0	V(PR) 3
	VTHETA PR2	-617.2	-627.3	-640.1	-671.5	-709.2	-752.9	-782.2	-788.5	-796.5	VTHETA PR2
	VTHETA PR3	142.9	101.7	69.2	-63.4	-139.8	-202.5	-224.2	-226.0	-229.1	VTHETA PR3
	U 2	724.40	732.99	744.22	778.67	827.16	870.46	901.73	911.84	922.60	U 2
	U 3	725.35	734.98	744.57	773.77	811.76	850.16	878.56	888.55	898.18	U 3
	M 2	0.6187	0.6153	0.6278	0.6322	0.6232	0.6005	0.5888	0.5773	0.5773	M 2
	M 3	0.8368	0.8424	0.8456	0.8349	0.7922	0.7609	0.7483	0.7341	0.7268	M 3
	M(PR) 2	0.8378	0.8417	0.8531	0.8800	0.9074	0.9308	0.9351	0.9320	0.9294	M(PR) 2
	M(PR) 3	0.3612	0.4142	0.4469	0.5474	0.5356	0.5330	0.5161	0.4968	0.4741	M(PR) 3
	TURN(PR)	63.619	56.337	52.086	39.301	33.268	29.035	28.397	28.132	27.625	TURN(PR)
	UUBAR	0.5344	0.4437	0.3680	0.1687	0.1697	0.1735	0.1845	0.2031	0.2227	UUBAR

	LOSS PARA	0.1612	0.1415	0.1209	0.0582	0.0605	0.0631	0.0684	0.0756	0.0829	LOSS PARA
	DFAC	0.8175	0.7465	0.7065	0.5708	0.5871	0.5980	0.6291	0.6522	0.6791	DFAC
	EFFP	0.6151	0.6700	0.7251	0.8521	0.8374	0.8300	0.8275	0.8143	0.7978	EFFP
	EFF	0.5956	0.6521	0.7093	0.8431	0.8281	0.8204	0.8174	0.8034	0.7860	EFF
	INCID	-12.444	-10.586	-9.791	-8.569	-7.777	-6.679	-5.749	-5.861	-6.526	INCID
	DEVM	13.487	13.578	12.123	13.522	11.208	10.238	11.194	12.657	15.444	DEVM
	P 2	14.533	14.585	14.636	14.708	14.750	14.708	14.574	14.502	14.430	P 2
	P 3	20.658	21.257	21.794	22.336	21.918	21.743	21.646	21.553	21.598	P 3
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	T 3	610.750	609.100	606.800	596.700	593.750	593.400	596.500	598.000	596.200	T 3

STATOR F	PCT SPAN	95.81	92.01	86.21	69.91	49.21	29.51	14.11	9.31	4.51	PCT SPAN
	DIA	16.659	16.803	17.023	17.641	18.426	19.173	19.767	19.939	20.121	DIA
STATOR-L.E.	BETA 3	66.870	60.524	56.561	46.976	46.719	46.774	48.493	50.051	51.650	BETA 3
STATOR-T.E.	BETA 4	3.104	3.522	4.080	5.342	4.405	5.852	10.031	11.658	12.544	BETA 4
	V 3	944.42	961.52	975.64	972.10	923.37	891.53	878.85	869.15	865.44	V 3
	V 4	1014.06	1009.18	1016.40	1000.67	984.07	946.87	920.42	909.45	898.40	V 4
	VZ 3	370.99	473.11	537.58	663.06	632.48	609.49	580.96	566.63	551.73	VZ 3
	VZ 4	1012.52	1007.15	1013.61	995.80	979.96	942.59	902.49	891.40	868.60	VZ 4
	V-THETA 3	868.50	837.04	814.09	710.45	671.60	648.46	656.51	664.55	671.26	V-THETA 3
	V-THETA 4	54.91	62.00	72.31	93.11	75.48	96.60	159.63	180.82	193.26	V-THETA 4
	M 3	0.8317	0.8503	0.8665	0.8712	0.8238	0.7920	0.7771	0.7664	0.7571	M 3
	M 4	0.9027	0.8990	0.9085	0.9006	0.8862	0.8511	0.8187	0.7965	0.7916	M 4
	TURN(PR)	63.765	57.000	52.475	41.618	42.265	40.629	38.344	38.274	38.228	TURN(PR)
	UUBAR	0.1783	0.1742	0.1470	0.1164	0.1154	0.1157	0.1480	0.1636	0.1844	UUBAR
	LOSS PARA	0.0569	0.0562	0.0465	0.0388	0.0414	0.0494	0.0608	0.0672	0.0840	LOSS PARA
	DFAC	0.7021	0.2120	0.2088	0.1891	0.1680	0.1711	0.1777	0.1795	0.1812	DFAC
	EFFP	1.4981	2.3100	2.2533	2.4336	1.6508	1.6690	2.2069	2.8497	2.3872	EFFP
	INCID	1.870	1.122	0.755	-5.343	-5.926	-7.885	-9.168	-8.828	-8.507	INCID
	DEVM	8.354	9.522	9.879	10.059	8.499	9.837	13.988	14.766	14.765	DEVM
	P 3	20.658	21.257	21.794	22.336	21.918	21.743	21.646	21.553	21.598	P 3
	P 4	19.315	19.863	20.596	21.340	21.009	20.890	20.710	20.606	20.677	P 4
	T 3	610.750	609.100	606.800	596.700	593.750	593.400	596.500	598.000	596.200	T 3
	T 4	610.750	609.100	606.800	596.700	593.750	593.400	596.500	598.000	596.200	T 4

ORIGINAL PAGE IS
OF POOR QUALITY

Table B-4. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 99.48 Equivalent Rotor Speed = 9884.80 Equivalent Weight Flow = 39.195 lb/sec
Uniform Inlet
U.S. Customary Units

INLET GUIDE VANE	PCT SPAN	95.79	91.71	86.89	70.41	49.21	29.10	13.80	9.00	4.70	PCT SPAN
	DIA	16.749	16.991	17.276	18.252	19.307	20.097	21.003	21.387	22.142	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	12.419	12.054	11.880	12.326	12.951	13.454	14.013	14.462	15.209	BETA 2
	V 1	419.03	417.14	417.92	421.92	429.95	410.07	387.46	376.09	365.41	V 1
	V 2	481.76	487.66	490.76	495.41	491.97	480.98	465.14	457.83	452.24	V 2
	VZ 1	419.62	417.12	417.89	421.76	429.50	409.31	386.49	375.07	364.33	VZ 1
	VZ 2	470.47	476.99	480.15	483.51	478.12	469.34	447.91	439.61	437.44	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	103.61	102.21	101.00	105.65	109.95	111.33	111.78	113.54	117.57	V-THETA 2
	M 1	0.3813	0.3790	0.3797	0.3834	0.3909	0.3723	0.3513	0.3407	0.3309	M 1
	M 2	0.4398	0.4436	0.4483	0.4527	0.4495	0.4390	0.4241	0.4172	0.4119	M 2
	TURN	-12.42	-12.04	-11.88	-12.31	-12.91	-13.36	-13.91	-14.36	-15.67	TURN
	UUBAR	0.0480	0.0224	0.0074	-0.0145	0.0279	0.0	0.0086	0.0092	0.0	UUBAR
	DFAC	-0.049	-0.071	-0.076	-0.072	-0.037	-0.057	-0.075	-0.083	-0.092	DFAC
	EFFP	0.8761	0.9461	0.9819	1.0371	0.9225	0.9999	0.9818	0.9823	0.9999	EFFP
	INCID	5.9000	5.9200	5.9700	6.2500	6.6600	7.0000	7.3200	7.4700	7.4700	INCID
	DEVM	4.561	5.207	5.803	6.486	7.325	8.227	8.795	8.691	8.212	DEVM
	P 1	14.644	14.659	14.670	14.721	14.814	14.721	14.668	14.546	14.489	P 1
	P 2	14.577	14.628	14.659	14.742	14.773	14.721	14.597	14.535	14.469	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	UUBAR FS										UUBAR FS
	P1 FS										P1 FS
	LOSS PARA FS										LOSS PARA FS

ROTOR F	PCT SPAN	95.01	89.99	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA	16.721	16.943	17.164	17.826	18.713	19.596	20.262	20.483	20.705	DIA
ROTOR -L.E.	BETA 2	4.348	4.279	4.166	4.537	4.955	10.352	10.850	11.238	11.790	BETA 2
ROTOR -T.E.	BETA 3	63.909	61.545	58.891	50.121	46.283	49.272	53.361	55.346	56.794	BETA 3
	BETA(PR) 2	44.314	44.661	45.350	46.198	47.927	50.056	52.164	52.956	53.585	BETA(PR) 2
	BETA(PR) 3	-19.127	-13.588	-8.551	3.376	11.521	17.636	21.490	22.836	24.411	BETA(PR) 3
	V 2	639.76	637.39	634.54	648.75	652.03	641.67	620.77	610.54	603.15	V 2
	V 3	968.72	957.70	951.19	955.20	915.71	877.01	844.01	833.43	824.52	V 3
	VZ 2	631.26	629.05	630.36	639.46	640.67	628.60	606.11	595.05	586.38	VZ 2
	VZ 3	425.42	455.73	491.31	612.27	608.90	571.37	502.74	472.99	450.65	VZ 3
	V-THETA 2	103.92	102.77	101.71	107.43	112.48	114.83	116.17	118.22	122.40	V-THETA 2
	V-THETA 3	868.73	840.91	814.17	732.61	682.99	663.61	675.98	684.27	688.49	V-THETA 3
	V(PR) 2	882.2	887.5	897.1	924.1	957.3	980.8	990.4	990.1	990.3	V(PR) 2
	V(PR) 3	453.3	471.4	497.3	613.8	622.5	601.5	542.8	515.8	497.6	V(PR) 3
	VTHETA PR2	-616.3	-626.0	-636.2	-666.8	-709.9	-750.6	-780.4	-788.4	-794.9	VTHETA PR2
	VTHETA PR3	147.5	110.2	73.4	-30.1	-124.1	-181.7	-197.9	-194.2	-204.5	VTHETA PR3
	U 2	720.24	728.78	739.95	774.19	822.41	865.46	896.56	906.81	917.30	U 2
	U 3	721.19	730.76	740.29	768.93	807.10	845.27	873.91	883.44	893.02	U 3
	M 2	0.5928	0.5905	0.5916	0.6018	0.6050	0.5947	0.5740	0.5640	0.5567	M 2
	M 3	0.8559	0.8461	0.8415	0.8521	0.8149	0.7759	0.7487	0.7294	0.7200	M 3
	M(PR) 2	0.8175	0.8221	0.8311	0.8571	0.8883	0.9091	0.9158	0.9146	0.9141	M(PR) 2
	M(PR) 3	0.4005	0.4164	0.4400	0.5475	0.5539	0.5322	0.4763	0.4514	0.4346	M(PR) 3
	TURN(PR)	63.308	58.375	53.897	42.808	36.364	32.355	30.608	30.059	29.121	TURN(PR)
	UUBAR	0.4005	0.3556	0.2880	0.0394	0.0271	0.0623	0.1455	0.1732	0.1858	UUBAR

	LOSS PARA	0.1237	0.1129	0.0944	0.0136	0.0076	0.0230	0.0544	0.0649	0.0696	LOSS PARA
	DFAC	0.7656	0.7411	0.7090	0.5693	0.5656	0.5996	0.6749	0.7071	0.7281	DFAC
	EFFP	0.7211	0.7479	0.7928	0.9667	0.9790	0.9440	0.8746	0.8556	0.8429	EFFP
	EFF	0.7044	0.7325	0.7797	0.9643	0.9776	0.9403	0.8665	0.8464	0.8324	EFF
	INCID	-11.336	-9.539	-8.046	-7.637	-6.585	-5.515	-4.674	-4.776	-5.612	INCID
	DEVM	14.906	12.586	11.458	11.374	9.302	8.080	10.088	11.815	14.667	DEVM
	P 2	14.577	14.628	14.659	14.742	14.773	14.721	14.597	14.535	14.489	P 2
	P 3	22.056	22.315	22.676	23.978	23.683	23.244	22.748	22.604	22.511	P 3
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	T 3	611.200	609.500	607.000	598.900	595.300	595.600	599.600	601.100	602.300	T 3

STATOR F	PCT SPAN	95.81	92.01	86.21	69.91	49.21	29.51	14.11	9.31	4.51	PCT SPAN
	DIA	16.659	16.803	17.023	17.641	18.426	19.173	19.757	19.939	20.121	DIA
STATOR-L.E.	BETA 3	64.472	60.627	56.988	47.398	45.825	47.018	51.149	53.105	54.561	BETA 3
STATOR-T.E.	BETA 4	8.131	8.767	9.693	10.930	10.526	10.410	10.129	10.187	10.339	BETA 4
	V 3	962.95	965.44	971.38	996.49	952.72	911.24	872.23	860.15	849.78	V 3
	V 4	614.71	629.56	654.61	727.54	722.54	691.92	673.53	672.19	671.81	V 4
	VZ 3	414.99	473.53	529.18	674.32	663.28	620.16	545.92	515.21	491.56	VZ 3
	VZ 4	608.50	622.13	645.14	713.97	709.53	678.89	660.21	658.18	656.74	VZ 4
	V-THETA 3	868.94	841.31	814.50	733.26	682.66	665.45	677.75	686.31	690.70	V-THETA 3
	V-THETA 4	86.94	95.94	110.19	137.87	131.83	124.72	117.95	118.27	119.81	V-THETA 4
	M 3	0.8500	0.8539	0.8620	0.8947	0.8525	0.8101	0.7683	0.7554	0.7445	M 3
	M 4	0.5208	0.5349	0.5587	0.6301	0.6274	0.5987	0.5796	0.5776	0.5767	M 4
	TURN(PR)	56.340	51.859	47.291	36.455	35.257	36.524	40.904	42.797	44.097	TURN(PR)
	UUBAR	0.0348	0.0379	0.0403	0.0542	0.0548	0.0951	0.1025	0.0929	0.0835	UUBAR
	LOSS PARA	0.0110	0.0121	0.0130	0.0182	0.0194	0.0353	0.0394	0.0361	0.0327	LOSS PARA
	DFAC	0.6217	0.5986	0.5652	0.4757	0.4521	0.4676	0.4826	0.4837	0.4821	DFAC
	EFFP	0.9541	0.9487	0.9428	0.9119	0.9001	0.8209	0.7932	0.8049	0.8174	EFFP
	INCID	-0.529	1.225	1.182	-4.921	-6.830	-7.642	-6.510	-5.770	-5.830	INCID
	DEVM	13.381	14.766	15.491	15.674	14.613	14.384	14.086	13.334	12.573	DEVM
	P 3	22.056	22.315	22.676	23.978	23.683	23.244	22.748	22.604	22.511	P 3
	P 4	21.767	21.994	22.325	23.451	23.193	22.469	21.994	21.963	21.932	P 4
	T 3	611.200	609.500	607.000	598.900	595.300	595.600	599.600	601.100	602.300	T 3
	T 4	611.200	609.500	607.000	598.900	595.300	595.600	599.600	601.100	602.300	T 4

Table B-4. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 99.51 Equivalent Rotor Speed = 9887.24 Equivalent Weight Flow = 38.040 lb/sec
Uniform Inlet
U.S. Customary Units

INLET GUIDE VANE	PCT SPAN	95.79	91.71	86.89	70.41	49.21	29.10	13.80	9.00	4.70	PCT SPAN
	DIA	16.749	16.991	17.276	18.252	19.507	20.697	21.603	21.887	22.142	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	12.233	11.860	11.596	12.321	13.119	13.513	13.527	13.517	13.530	BETA 2
	V 1	409.76	406.06	406.70	412.19	417.10	399.58	376.23	364.64	356.25	V 1
	V 2	464.07	468.90	471.09	474.67	473.12	463.73	448.97	442.60	436.82	V 2
	VZ 1	409.76	406.05	406.67	412.04	416.66	398.85	375.29	363.65	355.20	VZ 1
	VZ 2	454.10	458.95	461.38	463.29	459.49	448.54	433.23	426.74	420.78	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	98.46	95.66	94.67	101.19	107.08	107.79	104.22	102.58	101.26	V-THETA 2
	M 1	0.3721	0.3686	0.3692	0.3745	0.3789	0.3626	0.3409	0.3301	0.3224	M 1
	M 2	0.4236	0.4276	0.4297	0.4331	0.4316	0.4227	0.4088	0.4028	0.3974	M 2
	TURN	-12.23	-11.80	-11.59	-12.31	-13.08	-13.44	-13.42	-13.40	-13.40	TURN
	UUBAR	0.0423	0.0235	0.0156	0.0151	0.0368	0.0160	0.0182	0.0097	0.0152	UUBAR
	DFAC	-0.037	-0.059	-0.064	-0.051	-0.027	-0.045	-0.073	-0.089	-0.097	DFAC
	EFFP	0.8781	0.9361	0.9590	0.9583	0.8927	0.9583	0.9610	0.9809	0.9720	EFFP
	INCID	5.9000	5.9200	5.9700	6.2500	6.6600	7.0000	7.3200	7.4200	7.4200	INCID
	DEVM	4.767	5.502	6.086	6.491	7.159	8.169	9.277	9.648	9.877	DEVM
	P 1	14.649	14.654	14.664	14.726	14.797	14.726	14.613	14.551	14.510	P 1
	P 2	14.592	14.623	14.643	14.705	14.746	14.705	14.592	14.541	14.495	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	UUBAR FS										UUBAR FS
	P1 FS										P1 FS
	LOSS PARA FS										LOSS PARA FS
ROTOR F	PCT SPAN	95.01	89.59	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA	16.721	16.943	17.164	17.826	18.713	19.598	20.262	20.483	20.705	DIA
ROTOR -L.E.	BETA 2	9.267	9.133	9.027	9.627	10.179	10.488	10.554	10.565	10.568	BETA 2
ROTOR -T.E.	BETA 3	63.073	61.500	59.546	51.030	49.711	49.991	52.947	55.281	57.011	BETA 3
	BETA(PR) 2	45.829	46.526	47.057	47.905	49.449	51.479	53.596	54.402	55.171	BETA(PR) 2
	BETA(PR) 3	-17.420	-12.637	-8.266	3.985	11.717	16.518	23.026	24.156	25.689	BETA(PR) 3
	V 2	611.95	607.42	607.65	615.61	621.16	613.36	594.67	586.33	578.79	V 2
	V 3	963.96	948.16	938.81	936.74	900.76	862.86	830.74	821.76	813.15	V 3
	VZ 2	603.93	599.72	600.09	606.63	610.12	600.60	581.39	572.71	565.04	VZ 2
	VZ 3	435.65	451.75	475.61	586.97	582.05	553.94	499.64	467.14	441.86	VZ 3
	V-THETA 2	98.75	96.41	95.34	102.89	109.55	111.18	108.32	106.61	105.42	V-THETA 2
	V-THETA 3	856.12	832.23	809.49	728.09	686.59	659.94	661.78	674.15	680.69	V-THETA 3
	V(PR) 2	866.7	871.7	880.9	905.1	959.3	966.0	981.7	986.1	991.7	V(PR) 2
	V(PR) 3	459.9	465.5	480.5	590.8	595.4	586.0	545.3	514.5	493.0	V(PR) 3
	VTHETA PR2	-621.7	-632.5	-644.8	-671.5	-713.1	-754.5	-788.5	-800.0	-812.1	VTHETA PR2
	VTHETA PR3	136.6	101.3	69.0	-41.0	-120.7	-185.5	-212.3	-209.5	-212.5	VTHETA PR3
	U 2	720.42	728.96	740.13	774.39	822.62	865.67	890.78	906.83	917.53	U 2
	U 3	721.36	730.94	740.48	769.12	807.30	845.48	874.13	883.66	893.24	U 3
	M 2	0.5694	0.5809	0.5911	0.5690	0.5744	0.5666	0.5486	0.5403	0.5329	M 2
	M 3	0.8517	0.8366	0.8289	0.8333	0.7992	0.7620	0.7287	0.7184	0.7085	M 3
	M(PR) 2	0.8007	0.8049	0.8134	0.8360	0.8687	0.8926	0.9054	0.9087	0.9131	M(PR) 2
	M(PR) 3	0.4064	0.4108	0.4242	0.5256	0.5263	0.5175	0.4783	0.4498	0.4296	M(PR) 3
	TURN(PR)	63.126	59.094	55.313	43.966	37.691	32.901	30.512	30.143	29.439	TURN(PR)
	UUBAR	0.3564	0.3179	0.2691	0.0345	0.0175	0.0410	0.1099	0.1514	0.1790	UUBAR
	LOSS PARA	0.1097	0.1014	0.0883	0.0120	0.0063	0.0150	0.0406	0.0561	0.0663	LOSS PARA
	DFAC	0.7517	0.7423	0.7235	0.5856	0.5886	0.6094	0.6669	0.7079	0.7371	DFAC
	EFFP	0.8043	0.8128	0.8137	0.9711	0.9840	0.9643	0.9106	0.8836	0.8578	EFFP
	EFF	0.7495	0.7690	0.8016	0.9691	0.9829	0.9819	0.9046	0.8759	0.8484	EFF
	INCID	-9.821	-7.674	-5.945	-5.930	-5.062	-4.041	-3.240	-3.328	-3.622	INCID
	DEVM	16.603	13.534	11.742	11.983	9.447	8.498	11.618	13.130	15.940	DEVM
	P 2	14.592	14.623	14.643	14.705	14.746	14.705	14.592	14.541	14.495	P 2
	P 3	22.555	22.709	22.935	23.971	23.807	23.448	23.012	22.844	22.791	P 3
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	T 3	610.400	609.100	607.200	598.900	596.100	595.600	598.400	600.700	603.100	T 3
STATOR F	PCT SPAN	95.81	92.01	86.21	69.91	49.21	29.51	14.11	9.31	4.51	PCT SPAN
	DIA	16.659	16.883	17.023	17.641	18.426	19.173	19.757	19.939	20.121	DIA
STATOR-L.E.	BETA 3	63.588	60.642	57.756	48.577	47.261	47.826	50.665	53.133	54.850	BETA 3
STATOR-T.E.	BETA 4	9.934	10.246	10.613	11.306	11.372	11.067	10.748	10.663	10.547	BETA 4
	V 3	956.36	953.33	956.10	971.87	933.71	894.46	857.36	847.12	837.14	V 3
	V 4	574.19	580.34	604.71	677.97	673.14	648.63	632.42	634.39	634.23	V 4
	VZ 3	426.31	426.36	510.01	642.82	631.41	599.50	539.90	507.08	480.85	VZ 3
	VZ 4	565.55	570.92	599.16	664.47	659.14	635.04	619.70	620.23	619.52	VZ 4
	V-THETA 3	854.32	832.02	809.82	728.54	686.26	661.76	663.51	676.17	682.87	V-THETA 3
	V-THETA 4	99.05	104.29	112.27	132.84	132.56	124.71	117.63	116.78	115.90	V-THETA 4
	M 3	0.8460	0.8440	0.8473	0.8692	0.8324	0.7933	0.7546	0.7430	0.7316	M 3
	M 4	0.4851	0.4904	0.5161	0.5841	0.5811	0.5588	0.5436	0.5434	0.5421	M 4
	TURN(PR)	53.653	50.394	47.181	37.258	35.448	36.677	40.003	42.350	44.129	TURN(PR)
	UUBAR	0.0584	0.0556	0.0478	0.0484	0.0590	0.0889	0.0901	0.0789	0.0691	UUBAR
	LOSS PARA	0.0184	0.0177	0.0154	0.0162	0.0268	0.0329	0.0346	0.0306	0.0271	LOSS PARA
	DFAC	0.6540	0.6338	0.6033	0.5135	0.4950	0.5047	0.5140	0.5162	0.5172	DFAC
	EFFP	0.9282	0.9295	0.9370	0.9273	0.9034	0.8489	0.8372	0.8521	0.8659	EFFP
	INCID	-1.413	1.240	1.991	-3.742	-5.294	-6.833	-6.794	-5.742	-5.541	INCID
	DEVM	15.164	14.245	14.411	14.050	15.458	15.040	14.702	13.808	12.830	DEVM
	P 3	22.555	22.709	22.935	23.971	23.807	23.448	23.012	22.844	22.791	P 3
	P 4	22.063	22.237	22.525	23.520	23.294	22.740	22.360	22.340	22.319	P 4
	T 3	610.400	609.100	607.200	598.900	596.100	595.600	598.400	600.700	603.100	T 3
	T 4	610.400	609.100	607.200	598.900	596.100	595.600	598.400	600.700	603.100	T 4

ORIGINAL PAGE IS
OF POOR QUALITY

Table B-4. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 98.91 Equivalent Rotor Speed = 9827.78 Equivalent Weight Flow = 36.937 lb/sec
Uniform Inlet
U.S. Customary Units

INLET GUIDE VANE	PCT SPAN	95.79	91.71	86.89	70.41	49.21	29.10	13.80	9.00	4.70	PCT SPAN
	DIA	16.749	16.991	17.276	18.252	19.567	20.697	21.603	21.887	22.142	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	12.591	12.211	11.912	12.062	12.845	13.355	13.522	13.948	14.978	BETA 2
	V 1	397.73	396.22	396.54	398.74	399.63	381.13	352.34	341.45	332.45	V 1
	V 2	444.16	448.45	451.82	456.06	455.47	445.28	430.20	423.65	417.29	V 2
	VZ 1	397.72	396.20	396.51	398.54	399.22	380.43	351.46	340.52	331.45	VZ 1
	VZ 2	433.47	436.27	442.00	445.58	442.63	430.98	415.12	407.74	399.45	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	96.82	94.85	93.24	95.22	100.48	102.32	99.83	101.27	106.87	V-THETA 2
	M 1	0.3609	0.3594	0.3597	0.3618	0.3626	0.3454	0.3188	0.3087	0.3004	M 1
	M 2	0.4043	0.4083	0.4115	0.4155	0.4149	0.4053	0.3912	0.3850	0.3791	M 2
	TURN	-12.59	-12.21	-11.91	-12.05	-12.61	-13.28	-13.42	-13.83	-14.84	TURN
	UUBAR	0.0488	0.0409	0.0245	0.0121	0.0200	0.0088	-0.0103	-0.0110	0.00	UUBAR
	DFAC	-0.019	-0.035	-0.044	-0.048	-0.034	-0.054	-0.098	-0.104	-0.109	DFAC
	EFFP	0.8430	0.8793	0.9282	0.9645	0.9409	0.9776	1.0267	1.0198	1.0060	EFFP
	INCID	5.9000	5.9200	5.9700	6.2500	6.6600	7.0000	7.3700	7.4200	7.4200	INCID
	DEVM	4.409	5.090	5.771	6.750	7.431	8.326	9.282	9.220	8.441	DEVM
	P 1	14.660	14.680	14.691	14.737	14.788	14.721	14.568	14.537	14.496	P 1
	P 2	14.598	14.629	14.660	14.721	14.762	14.711	14.598	14.547	14.496	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	UUBAR FS										UUBAR FS
	P1 FS										P1 FS
	LOSS PARA FS										LOSS PARA FS
ROTOR F	PCT SPAN	95.01	89.99	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA	16.721	16.943	17.164	17.828	18.713	19.598	20.262	20.463	20.705	DIA
ROTOR -L.E.	BETA 2	9.638	9.524	9.339	9.495	10.043	10.448	10.630	10.981	11.778	BETA 2
ROTOR -T.E.	BETA 3	63.060	61.396	59.434	50.979	49.222	50.103	53.766	55.514	57.623	BETA 3
	BETA(PR) 2	47.266	47.902	48.346	49.297	50.769	52.834	54.938	55.676	56.322	BETA(PR) 2
	BETA(PR) 3	-17.425	-12.781	-8.542	4.308	12.024	18.019	21.791	23.159	24.766	BETA(PR) 3
	V 2	580.05	576.44	578.58	587.20	593.58	584.40	565.73	557.11	548.83	V 2
	V 3	956.44	945.60	938.28	927.66	895.89	862.45	834.65	825.18	814.77	V 3
	VZ 2	571.86	568.49	570.89	578.85	583.27	572.32	552.77	543.43	533.54	VZ 2
	VZ 3	433.55	452.12	477.00	583.90	584.70	542.38	492.44	466.33	435.46	VZ 3
	V-THETA 2	97.11	95.37	93.89	96.82	103.30	105.53	103.75	105.44	111.26	V-THETA 2
	V-THETA 3	853.10	829.11	807.67	720.51	677.91	660.71	672.00	678.27	686.78	V-THETA 3
	V(PR) 2	842.7	848.0	859.0	887.8	923.0	948.8	964.9	965.8	964.4	V(PR) 2
	V(PR) 3	457.5	466.1	482.8	586.0	598.8	582.7	532.7	509.7	482.3	V(PR) 3
	VTHETA PR2	-619.0	-629.2	-641.8	-672.9	-714.4	-754.9	-787.6	-795.9	-800.8	VTHETA PR2
	VTHETA PR3	136.1	102.6	71.6	-44.0	-124.5	-174.7	-196.9	-199.5	-201.1	VTHETA PR3
	U 2	716.08	724.57	735.66	769.73	817.67	860.47	891.38	901.38	912.01	U 2
	U 3	717.03	726.55	736.02	764.50	802.45	840.40	868.87	878.35	887.87	U 3
	M 2	0.5342	0.5306	0.5327	0.5411	0.5474	0.5384	0.5203	0.5119	0.5039	M 2
	M 3	0.8470	0.8349	0.8289	0.8249	0.7949	0.7613	0.7312	0.7210	0.7102	M 3
	M(PR) 2	0.7760	0.7806	0.7909	0.8182	0.8512	0.8742	0.8867	0.8874	0.8855	M(PR) 2
	M(PR) 3	0.4043	0.4116	0.4266	0.5210	0.5313	0.5144	0.4667	0.4454	0.4204	M(PR) 3
	TURN(PR)	64.568	60.613	56.878	44.977	38.705	34.754	33.087	32.463	31.491	TURN(PR)
	UUBAR	0.3759	0.3309	0.2779	0.0633	0.0284	0.0577	0.1355	0.1605	0.1810	UUBAR
	LOSS PARA	0.1155	0.1054	0.0911	0.0219	0.0102	0.0212	0.0505	0.0600	0.0676	LOSS PARA
	DFAC	0.7462	0.7335	0.7135	0.5824	0.5767	0.6085	0.6800	0.7092	0.7408	DFAC
	EFFP	0.7623	0.7835	0.8168	0.9539	0.9746	0.9535	0.8916	0.8744	0.8580	EFFP
	EFF	0.7475	0.7698	0.8049	0.9507	0.9729	0.9503	0.8844	0.8661	0.8486	EFF
	INCID	-8.384	-6.496	-5.655	-4.536	-3.741	-2.735	-1.895	-2.050	-2.868	INCID
	DEVM	16.598	13.388	11.467	12.305	9.804	8.460	10.388	12.137	15.041	DEVM
	P 2	14.598	14.629	14.660	14.721	14.762	14.711	14.598	14.547	14.496	P 2
	P 3	22.431	22.636	22.913	23.671	23.630	23.374	23.025	22.913	22.784	P 3
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	T 3	609.300	608.200	606.400	598.000	595.400	595.900	600.250	601.700	603.000	T 3
STATOR F	PCT SPAN	95.81	92.01	86.21	69.91	49.21	29.51	14.11	9.31	4.51	PCT SPAN
	DIA	16.659	16.803	17.023	17.641	18.426	19.173	19.757	19.939	20.121	DIA
STATOR-L.E.	BETA 3	63.584	60.542	57.647	48.668	46.960	47.937	51.604	53.328	55.401	BETA 3
STATOR-T.E.	BETA 4	9.730	9.991	10.359	11.043	11.349	11.011	11.007	10.992	10.978	BETA 4
	V 3	952.75	952.69	950.54	960.41	927.92	893.96	861.58	850.86	838.93	V 3
	V 4	545.17	559.72	584.79	641.02	640.83	620.40	613.55	610.60	612.58	V 4
	VZ 3	423.78	468.50	511.83	634.09	632.75	597.88	533.95	507.01	475.28	VZ 3
	VZ 4	537.30	551.17	575.14	628.82	627.55	607.52	599.72	596.32	597.60	VZ 4
	V-THETA 3	853.31	829.50	807.99	720.96	677.58	662.54	673.76	680.90	688.96	V-THETA 3
	V-THETA 4	92.13	97.10	105.13	122.72	125.95	118.21	116.65	115.82	115.92	V-THETA 4
	M 3	0.8412	0.8421	0.8474	0.8581	0.8271	0.7926	0.7574	0.7459	0.7335	M 3
	M 4	0.4600	0.4732	0.4962	0.5507	0.5518	0.5330	0.5247	0.5214	0.5226	M 4
	TURN(PR)	53.860	50.550	47.284	37.612	35.569	36.843	40.486	42.219	44.303	TURN(PR)
	UUBAR	0.0668	0.0476	0.0442	0.0408	0.0540	0.0641	0.0774	0.0739	0.0546	UUBAR
	LOSS PARA	0.0148	0.0151	0.0143	0.0137	0.0190	0.0311	0.0297	0.0286	0.0214	LOSS PARA
	DFAC	0.6837	0.6621	0.6309	0.5470	0.5258	0.5388	0.5446	0.5490	0.5470	DFAC
	EFFP	0.9450	0.9427	0.9446	0.9428	0.9185	0.8690	0.8712	0.8746	0.9035	EFFP
	INCID	-1.411	1.140	1.861	-3.651	-5.696	-6.722	-6.055	-5.546	-4.989	INCID
	DEVM	14.979	15.990	16.157	15.788	15.435	14.984	14.960	14.135	13.208	DEVM
	P 3	22.431	22.636	22.913	23.671	23.630	23.374	23.025	22.913	22.784	P 3
	P 4	22.041	22.236	22.533	23.302	23.169	22.708	22.462	22.390	22.410	P 4
	T 3	609.300	608.200	606.400	598.000	595.400	595.900	600.250	601.700	603.000	T 3
	T 4	609.300	608.200	606.400	598.000	595.400	595.900	600.250	601.700	603.000	T 4

Table B-4. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 98.93 Equivalent Rotor Speed = 9829.58 Equivalent Weight Flow = 35.761 lb/sec
Uniform Inlet
U.S. Customary Units

INLET GUIDE VANE	PCT SPAN	95.79	91.71	86.89	70.41	49.21	29.10	13.80	9.00	4.70	PCT SPAN
	DIA	16.749	16.991	17.276	18.252	19.507	20.697	21.603	21.887	22.142	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	12.678	12.330	12.052	11.900	12.928	13.133	13.691	14.227	14.952	BETA 2
	V 1	373.05	372.38	374.96	376.60	378.53	363.37	339.88	330.12	322.17	V 1
	V 2	423.21	426.69	429.05	434.03	433.97	425.17	409.63	404.18	397.90	V 2
	VZ 1	373.04	372.36	374.93	376.46	378.14	362.70	339.03	329.23	321.22	VZ 1
	VZ 2	412.88	416.81	419.50	424.28	421.79	411.89	394.99	388.53	380.93	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	92.88	91.11	89.56	89.41	96.82	96.10	96.22	98.51	101.73	V-THETA 2
	M 1	0.3379	0.3373	0.3397	0.3431	0.3430	0.3290	0.3073	0.2983	0.2910	M 1
	M 2	0.3846	0.3879	0.3901	0.3948	0.3947	0.3865	0.3719	0.3669	0.3610	M 2
	TURN	-12.68	-12.33	-12.05	-11.89	-12.89	-13.06	-13.54	-14.11	-14.81	TURN
	UUBAR	0.0461	0.0462	0.0455	0.0267	0.0178	0.0048	0.0111	0.0059	0.0186	UUBAR
	DFAC	-0.034	-0.047	-0.047	-0.050	-0.040	-0.057	-0.062	-0.091	-0.092	DFAC
	EFFP	0.8676	0.8770	0.8774	0.9255	0.9490	0.9677	0.9771	0.9888	0.9671	EFFP
	INCID	5.9000	5.9200	5.9700	6.2500	6.6600	7.0000	7.3200	7.4200	7.4200	INCID
	DEVM	4.322	4.971	5.831	6.912	7.349	8.547	9.114	8.944	8.467	DEVM
	P 1	14.660	14.680	14.701	14.742	14.773	14.716	14.609	14.562	14.526	P 1
	P 2	14.609	14.629	14.650	14.711	14.752	14.711	14.598	14.557	14.511	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	UUBAR FS										UUBAR FS
	P1 FS										P1 FS
	LOSS PARA FS										LOSS PARA FS

ROTOR F	PCT SPAN	95.01	89.99	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA	16.721	16.943	17.164	17.828	18.713	19.598	20.262	20.483	20.705	DIA
ROTOR -L.E.	BETA 2	9.778	9.687	9.521	9.441	10.189	10.353	10.442	11.275	11.834	BETA 2
ROTOR -T.E.	BETA 3	46.167	44.230	41.881	32.817	31.298	32.290	35.796	38.369	40.319	BETA 3
	BETA(PR) 2	49.055	49.709	50.206	51.157	52.524	54.531	56.588	57.222	57.915	BETA(PR) 2
	BETA(PR) 3	-20.909	-15.516	-10.628	3.723	11.968	18.897	22.847	23.705	25.006	BETA(PR) 3
	V 2	548.54	544.49	545.29	554.52	561.05	553.85	534.78	527.95	520.02	V 2
	V 3	944.36	932.85	927.92	914.62	879.72	841.23	818.20	813.47	808.81	V 3
	VZ 2	540.57	536.73	537.75	546.73	551.05	542.56	522.17	514.47	505.48	VZ 2
	VZ 3	381.12	405.14	437.23	552.74	544.69	513.87	459.18	425.43	399.84	VZ 3
	V-THETA 2	93.16	91.62	90.19	90.41	99.04	99.12	100.00	102.57	105.91	V-THETA 2
	V-THETA 3	862.76	839.17	818.20	728.67	686.08	664.64	675.56	691.50	701.53	V-THETA 3
	V(PR) 2	824.9	830.0	840.3	871.9	906.4	936.4	950.0	952.1	953.6	V(PR) 2
	V(PR) 3	410.7	422.7	445.3	554.3	562.8	544.9	500.5	467.5	445.6	V(PR) 3
	VTHETA PR2	-623.1	-633.1	-645.6	-679.0	-718.6	-761.5	-791.5	-799.0	-806.3	VTHETA PR2
	VTHETA PR3	145.6	112.5	82.0	-36.0	-116.5	-175.9	-193.5	-187.0	-186.5	VTHETA PR3
	U 2	716.21	724.71	735.81	769.87	817.82	860.62	891.55	901.54	912.18	U 2
	U 3	717.16	726.68	736.16	764.64	802.59	840.55	869.03	878.51	888.03	U 3
	M 2	0.5036	0.4997	0.5005	0.5094	0.5157	0.5088	0.4904	0.4838	0.4762	M 2
	M 3	0.8315	0.8208	0.8173	0.8105	0.7776	0.7394	0.7146	0.7085	0.7027	M 3
	M(PR) 2	0.7573	0.7618	0.7712	0.8010	0.8332	0.8601	0.8711	0.8726	0.8732	M(PR) 2
	M(PR) 3	0.3616	0.3719	0.3922	0.4911	0.4975	0.4789	0.4371	0.4072	0.3854	M(PR) 3
	TURN(PR)	69.820	65.144	60.824	47.422	40.517	35.578	33.688	33.468	32.870	TURN(PR)
	UUBAR	0.3974	0.3484	0.2907	0.0800	0.0484	0.0853	0.1421	0.1748	0.1921	UUBAR
	LOSS PARA	0.1196	0.1097	0.0948	0.0277	0.0174	0.0312	0.0526	0.0651	0.0716	LOSS PARA
	DFAC	0.8029	0.7855	0.7574	0.6167	0.6137	0.6480	0.7123	0.7560	0.7870	DFAC
	EFFP	0.7613	0.7841	0.8194	0.9447	0.9617	0.9316	0.8907	0.8732	0.8590	EFFP
	EFF	0.7462	0.7702	0.8075	0.9408	0.9590	0.9270	0.8834	0.8644	0.8495	EFF
	INCID	-6.595	-4.691	-3.793	-2.678	-1.985	-1.036	-0.242	-0.501	-1.271	INCID
	DEVM	13.135	10.665	9.383	11.721	9.747	9.336	11.440	12.681	15.259	DEVM
	P 2	14.609	14.629	14.650	14.711	14.752	14.711	14.598	14.557	14.511	P 2
	P 3	22.601	22.817	23.115	23.783	23.680	23.331	23.141	23.135	23.135	P 3
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	T 3	611.000	609.900	608.100	599.800	597.000	597.500	601.300	603.600	605.750	T 3

STATOR F	PCT SPAN	95.81	92.01	86.21	69.91	49.21	29.51	14.11	9.31	4.51	PCT SPAN
	DIA	16.659	16.803	17.023	17.641	18.426	19.173	19.757	19.939	20.121	DIA
STATOR-L.E.	BETA 3	66.716	63.355	60.071	50.581	49.055	50.160	53.607	56.049	57.924	BETA 3
STATOR-T.E.	BETA 4	10.768	10.938	11.121	11.692	11.246	11.372	11.705	11.212	11.261	BETA 4
	V 3	939.48	939.34	944.55	944.06	908.62	869.36	843.13	834.77	832.23	V 3
	V 4	525.63	539.91	566.62	623.49	615.92	608.84	596.08	598.34	602.24	V 4
	VZ 3	371.36	421.20	471.24	599.30	594.95	556.06	499.24	466.95	441.07	VZ 3
	VZ 4	514.39	530.05	555.87	610.24	603.38	595.46	582.24	583.91	586.95	VZ 4
	V-THETA 3	862.97	839.57	818.54	729.12	685.75	666.48	677.33	693.56	703.78	V-THETA 3
	V-THETA 4	97.82	102.43	109.27	126.29	119.98	119.76	115.34	115.75	116.87	V-THETA 4
	M 3	0.8266	0.8273	0.8334	0.8400	0.8064	0.7670	0.7387	0.7319	0.7252	M 3
	M 4	0.4404	0.4551	0.4794	0.5339	0.5284	0.5218	0.5085	0.5095	0.5121	M 4
	TURN(PR)	55.949	52.416	48.945	38.877	37.768	38.708	42.295	44.726	46.552	TURN(PR)
	UUBAR	0.0528	0.0535	0.0510	0.0397	0.0586	0.0565	0.0723	0.0726	0.0677	UUBAR
	LOSS PARA	0.0166	0.0170	0.0164	0.0133	0.0207	0.0187	0.0277	0.0281	0.0269	LOSS PARA
	DFAC	0.7035	0.6800	0.6477	0.5594	0.5467	0.5401	0.5576	0.5626	0.5625	DFAC
	EFFP	0.9388	0.9363	0.9369	0.9448	0.9134	0.9194	0.8806	0.8772	0.8820	EFFP
	INCID	1.716	3.952	4.264	-1.737	-3.599	-4.498	-4.048	-2.820	-2.455	INCID
	DEVM	16.017	16.936	16.919	16.436	15.333	15.344	15.157	14.354	13.490	DEVM
	P 3	22.601	22.817	23.115	23.783	23.680	23.331	23.141	23.135	23.135	P 3
	P 4	22.170	22.375	22.683	23.433	23.197	22.958	22.632	22.632	22.675	P 4
	T 3	611.000	609.900	608.100	599.800	597.000	597.500	601.300	603.600	605.750	T 3
	T 4	611.000	609.900	608.100	599.800	597.000	597.500	601.300	603.600	605.750	T 4

ORIGINAL PAGE IS OF POOR QUALITY

Table B-4. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 99.02 Equivalent Rotor Speed = 9838.76 Equivalent Weight Flow = 34.618 lb/sec
Uniform Inlet
U.S. Customary Units

INLET GUIDE VANE											
	PCT SPAN	95.79	91.71	86.89	70.41	49.21	29.10	13.80	9.00	4.70	PCT SPAN
	DIA	16.749	16.991	17.276	18.252	19.507	20.697	21.603	21.887	22.142	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	12.214	11.988	11.808	11.967	12.950	13.319	13.628	13.935	14.833	BETA 2
	V 1	372.19	369.65	372.25	378.63	383.60	340.71	331.73	322.92	309.77	V 2
	V 2	415.05	419.11	421.63	426.21	424.92	417.36	401.67	395.98	321.47	VZ 1
	VZ 1	372.19	369.64	372.22	375.43	376.24	362.93	334.86	330.82	323.35	VZ 2
	VZ 2	405.63	409.93	412.62	416.54	412.96	404.01	387.42	381.13	-0.00	V-THETA 1
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	98.87	V-THETA 2
	V-THETA 2	87.80	87.05	86.26	88.29	94.96	95.65	93.93	94.57	0.2917	M 1
	M 1	0.3371	0.3348	0.3372	0.3403	0.3413	0.3292	0.3081	0.2998	0.3534	M 2
	M 2	0.3770	0.3806	0.3832	0.3874	0.3862	0.3792	0.3645	0.3592	-14.69	TURN
	TURN	-12.21	-11.99	-11.81	-11.96	-12.91	-13.25	-13.52	-13.82	0.0430	UUBAR
	UUBAR	0.0415	0.0280	0.0276	0.0090	0.0269	0.0192	0.0338	0.0348	-0.066	DFAC
	DFAC	-0.020	-0.039	-0.039	-0.039	-0.023	-0.036	-0.059	-0.067	0.9171	EFFP
	EFFP	0.8606	0.9146	0.9151	0.9710	0.9146	0.9455	0.9251	0.9271	7.4200	INCID
	INCID	5.9000	5.9200	5.9700	6.2500	6.6600	7.0000	7.3200	7.4200	8.585	DEVM
	DEVM	4.766	5.315	5.675	6.844	7.327	8.362	9.176	9.233	14.541	P 1
	P 1	14.653	14.604	14.684	14.725	14.766	14.725	14.629	14.582	14.505	P 2
	P 2	14.607	14.633	14.653	14.715	14.739	14.705	14.592	14.551	518.700	T 1
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700		UUBAR FS
	UUBAR FS										PI FS
	PI FS										LOSS PARA FS
	LOSS PARA FS										

ROTOR F											
	PCT SPAN	95.01	89.99	83.00	70.00	50.00	30.00	15.00	10.61	4.99	PCT SPAN
	DIA	16.721	16.943	17.164	17.826	18.713	19.598	20.262	20.483	20.705	DIA
ROTOR -L.E.	BETA 2	9.448	9.442	9.350	9.518	10.238	10.526	10.819	11.073	11.770	BETA 2
ROTOR -T.E.	BETA 3	63.332	62.046	60.345	51.436	50.267	51.296	55.151	57.263	59.545	BETA 3
	BETA(PR) 2	49.916	50.471	50.921	51.814	53.296	55.160	57.271	57.959	58.625	BETA(PR) 2
	BETA(PR) 3	-17.845	-13.436	-9.056	4.425	12.619	16.086	22.296	23.530	24.963	BETA(PR) 3
	V 2	530.49	533.58	534.69	543.23	547.67	542.28	523.10	519.96	508.09	V 2
	V 3	959.69	944.16	932.78	922.19	881.36	849.38	825.94	818.11	810.94	V 3
	VZ 2	529.22	526.35	527.56	535.47	537.83	530.93	510.80	503.14	493.99	VZ 2
	VZ 3	430.07	442.03	461.40	574.73	562.98	530.38	471.15	441.41	410.32	VZ 3
	V-THETA 2	68.66	67.55	66.86	84.76	97.14	98.65	97.62	98.47	102.93	V-THETA 2
	V-THETA 3	858.28	832.95	810.39	720.88	677.31	661.94	670.65	687.12	697.85	V-THETA 3
	V(PR) 2	821.9	827.0	836.9	866.3	900.5	930.7	946.4	950.2	950.7	V(PR) 2
	V(PR) 3	454.9	456.9	467.7	576.8	577.9	561.7	511.5	483.8	455.1	V(PR) 3
	VTHETA PR2	-628.6	-637.9	-649.6	-680.8	-721.4	-762.8	-794.8	-803.9	-810.1	VTHETA PR2
	VTHETA PR3	138.5	105.6	73.5	-44.5	-126.0	-179.4	-193.2	-192.2	-191.0	VTHETA PR3
	U 2	716.68	725.38	736.50	765.35	803.34	841.34	869.84	879.33	888.80	U 2
	U 3	717.83	727.36	736.65	765.35	803.34	841.34	869.84	879.33	888.80	U 3
	M 2	0.4920	0.4892	0.4903	0.4985	0.5028	0.4976	0.4792	0.4723	0.4648	M 2
	M 3	0.8469	0.8323	0.8224	0.8184	0.7799	0.7477	0.7217	0.7128	0.7047	M 3
	M(PR) 2	0.7538	0.7582	0.7674	0.7950	0.8268	0.8540	0.8670	0.8698	0.8697	M(PR) 2
	M(PR) 3	0.4014	0.4028	0.4124	0.5119	0.5113	0.4944	0.4470	0.4216	0.3955	M(PR) 3
	TURN(PR)	67.636	63.833	59.966	47.378	40.639	36.417	34.922	34.382	33.626	TURN(PR)
	UUBAR	0.3755	0.3360	0.2884	0.0613	0.0467	0.0794	0.1518	0.1840	0.2064	UUBAR
	LOSS PARA	0.1151	0.1068	0.0944	0.0212	0.0167	0.0291	0.0564	0.0685	0.0769	LOSS PARA
	DFAC	0.7478	0.7425	0.7279	0.5856	0.5917	0.6269	0.7011	0.7382	0.7740	DFAC
	EFFP	0.7759	0.7933	0.8209	0.9558	0.9637	0.9388	0.8854	0.8651	0.8460	EFFP
	EFF	0.7614	0.7798	0.8090	0.9527	0.9613	0.9347	0.8777	0.8561	0.8378	EFF
	INCID	-5.734	-3.929	-3.081	-2.021	-1.213	-0.406	0.442	0.238	-0.558	INCID
	DEVM	16.180	12.738	10.953	12.422	10.398	9.127	10.891	12.506	15.217	DEVM
	P 2	14.607	14.633	14.653	14.715	14.735	14.705	14.592	14.551	14.505	P 2
	P 3	22.789	22.922	23.096	23.843	23.556	23.351	23.126	23.049	22.993	P 3
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	T 3	611.000	609.700	607.700	599.200	596.100	597.100	601.800	603.800	605.800	T 3

STATOR F											
	PCT SPAN	95.81	92.01	86.21	69.91	49.21	29.51	14.11	9.31	4.51	PCT SPAN
	DIA	16.659	16.803	17.023	17.641	18.426	19.173	19.757	19.939	20.121	DIA
STATOR-L.E.	BETA 3	63.870	61.186	58.592	49.162	48.080	49.168	52.957	55.020	57.204	BETA 3
STATOR-T.E.	BETA 4	9.363	9.705	10.215	11.671	11.595	11.047	10.278	9.972	9.753	BETA 4
	V 3	953.99	951.13	949.97	953.40	910.61	878.71	851.72	842.88	834.57	V 3
	V 4	517.68	530.66	549.50	608.06	601.42	594.09	590.91	591.23	590.89	V 4
	VZ 3	420.14	458.41	495.03	623.02	607.85	573.60	512.02	482.20	451.11	VZ 3
	VZ 4	510.76	523.00	540.68	595.18	588.45	581.69	578.96	579.29	578.67	VZ 4
	V-THETA 3	856.49	833.35	810.72	721.32	676.98	663.77	678.42	689.18	700.08	V-THETA 3
	V-THETA 4	94.22	89.44	97.43	122.94	120.74	113.56	104.96	101.85	99.47	V-THETA 4
	M 3	0.8412	0.8393	0.8397	0.8500	0.8091	0.7765	0.7467	0.7367	0.7274	M 3
	M 4	0.4352	0.4471	0.4644	0.5203	0.5157	0.5086	0.5037	0.5031	0.5019	M 4
	TURN(PR)	54.507	51.480	48.372	37.499	36.443	38.039	42.567	44.930	47.328	TURN(PR)
	UUBAR	0.0836	0.0797	0.0755	0.0712	0.0670	0.0760	0.0751	0.0696	0.0660	UUBAR
	LOSS PARA	0.0264	0.0254	0.0244	0.0239	0.0236	0.0281	0.0289	0.0271	0.0259	LOSS PARA
	DFAC	0.7166	0.6960	0.6691	0.5783	0.5618	0.5633	0.5734	0.5781	0.5837	DFAC
	EFFP	0.9055	0.9077	0.9098	0.9055	0.9048	0.8860	0.8806	0.8866	0.8901	EFFP
	INCID	-1.130	1.783	2.785	-3.136	-4.575	-5.490	-4.699	-3.851	-3.181	INCID
	DEVM	14.613	15.703	16.013	16.415	15.681	15.020	14.223	13.120	11.991	DEVM
	P 3	22.789	22.922	23.096	23.843	23.556	23.351	23.126	23.049	22.993	P 3
	P 4	22.082	22.246	22.451	23.203	23.003	22.768	22.589	22.563	22.543	P 4
	T 3	611.000	609.700	607.700	599.200	596.100	597.100	601.800	603.800	605.800	T 3
	T 4	611.000	609.700	607.700	599.200	596.100	597.100	601.800	603.800	605.800	T 4

Table B-4. Blade Elemeat Performance (Continued)
Stage F, Rotor F – Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 93.65 Equivalent Rotor Speed = 9304.57 Equivalent Weight Flow = 39.126 lb/sec
Uniform Inlet
U.S. Customary Units

INLET GUIDE VANE	PCT SPAN	95.79	91.71	86.89	70.41	49.21	29.10	13.80	9.00	4.70	PCT SPAN
	DIA	16.749	16.991	17.276	18.252	19.107	20.697	21.603	21.887	22.142	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	12.726	12.421	12.163	12.215	13.308	13.455	13.827	14.198	14.518	BETA 2
	V 1	421.65	421.37	425.69	427.92	428.20	418.13	393.14	379.59	369.81	V 1
	V 2	482.23	488.33	491.72	493.07	489.92	481.32	465.88	458.59	451.95	V 2
	VZ 1	421.65	421.36	425.66	427.76	427.76	417.36	392.16	378.56	368.72	VZ 1
	VZ 2	470.37	476.85	480.58	481.44	475.44	465.67	448.98	440.89	433.53	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	106.22	105.02	103.58	104.22	112.46	111.41	110.51	111.54	112.76	V-THETA 2
	M 1	0.3832	0.3829	0.3870	0.3890	0.3893	0.3799	0.3566	0.3440	0.3349	M 1
	M 2	0.4402	0.4460	0.4492	0.4505	0.4475	0.4394	0.4247	0.4179	0.4116	M 2
	TURN	-12.73	-12.42	-12.16	-12.20	-13.27	-13.38	-13.72	-14.08	-14.38	TURN
	UUBAR	0.0476	0.0329	0.0322	0.0283	0.0317	0.0369	0.0335	0.0226	0.0286	UUBAR
	DFAC	-0.042	-0.058	-0.056	-0.053	-0.034	-0.037	-0.063	-0.077	-0.084	DFAC
	EFFP	0.8736	0.9177	0.9175	0.9255	0.9128	0.9040	0.9275	0.9556	0.9480	EFFP
	INCID	5.9000	5.9200	5.9700	6.2500	6.6600	7.0000	7.4200	7.4200	7.4200	INCID
	DEVM	4.274	4.880	5.520	6.587	6.970	8.227	8.979	8.972	8.898	DEVM
	P 1	14.622	14.653	14.689	14.730	14.772	14.751	14.622	14.545	14.493	P 1
	P 2	14.555	14.607	14.643	14.689	14.725	14.699	14.581	14.519	14.462	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	UUBAR FS										UUBAR FS
	P1 FS										P1 FS
	LOSS PARA FS										LOSS PARA FS
ROTOR F	PCT SPAN	95.01	89.99	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA	16.721	16.943	17.164	17.828	18.713	19.589	20.262	20.483	20.705	DIA
ROTOR -L.E.	BETA 2	9.575	9.526	9.379	9.462	10.238	10.361	10.704	11.015	11.260	BETA 2
ROTOR -T.E.	BETA 3	70.064	63.128	58.127	48.438	47.217	47.412	49.212	50.288	51.442	BETA 3
	BETA(PR) 2	42.136	42.683	43.161	44.405	45.878	48.040	50.194	51.016	51.823	BETA(PR) 2
	BETA(PR) 3	-25.242	-14.415	-9.267	5.372	12.956	18.731	22.065	23.379	25.194	BETA(PR) 3
	V 2	640.54	638.14	640.08	644.96	648.63	642.24	621.97	611.75	602.70	V 2
	V 3	871.85	887.64	899.75	893.16	854.11	825.24	806.77	797.34	789.80	V 3
	VZ 2	631.61	629.34	631.49	635.86	636.48	629.16	607.58	596.66	587.03	VZ 2
	VZ 3	297.02	400.75	481.43	592.38	579.67	557.57	525.85	508.22	497.28	VZ 3
	V-THETA 2	106.54	105.61	104.30	105.97	115.04	114.01	114.85	116.15	116.88	V-THETA 2
	V-THETA 3	816.88	790.87	772.13	668.05	626.35	606.59	609.47	611.88	611.31	V-THETA 3
	V(PR) 2	851.7	856.1	865.8	860.3	847.5	842.8	851.4	850.9	852.3	V(PR) 2
	V(PR) 3	330.4	416.0	468.0	594.4	594.8	590.6	570.0	556.4	541.5	V(PR) 3
	VTHETA PR2	-571.4	-580.4	-592.2	-622.8	-658.1	-699.7	-729.1	-737.2	-746.6	VTHETA PR2
	VTHETA PR3	140.0	103.0	75.3	-85.7	-133.4	-189.1	-213.1	-219.7	-229.3	VTHETA PR3
	U 2	677.96	686.00	696.51	726.95	774.14	794.66	842.61	831.59	840.60	U 2
	U 3	678.85	687.87	696.54	723.80	759.72	795.66	843.93	853.39	863.46	U 3
	M 2	0.5936	0.5912	0.5931	0.5980	0.6016	0.5953	0.5952	0.5852	0.5763	M 2
	M 3	0.7685	0.7847	0.7981	0.7987	0.7820	0.7333	0.7137	0.7039	0.6904	M 3
	M(PR) 2	0.7893	0.7932	0.8023	0.8254	0.8511	0.8739	0.8796	0.8785	0.8790	M(PR) 2
	M(PR) 3	0.2913	0.3678	0.4151	0.5324	0.5315	0.5249	0.5062	0.4913	0.4770	M(PR) 3
	TURN(PR)	67.211	57.020	52.418	39.021	32.981	29.247	28.062	27.575	26.570	TURN(PR)
	UUBAR	0.5740	0.4743	0.3802	0.1446	0.1238	0.1340	0.1588	0.1734	0.1914	UUBAR
	LOSS PARA	0.1687	0.1501	0.1244	0.0459	0.0442	0.0491	0.0581	0.0647	0.0712	LOSS PARA
	DFAC	0.8817	0.7761	0.7153	0.5491	0.5523	0.5718	0.6058	0.6227	0.6407	DFAC
	EFFP	0.5736	0.6375	0.7098	0.8617	0.8746	0.8838	0.8466	0.8339	0.8110	EFFP
	EFF	0.5560	0.6210	0.6953	0.8615	0.8682	0.8565	0.8386	0.8295	0.8066	EFF
	INCID	-13.514	-11.717	-10.240	-9.431	-8.534	-7.532	-6.647	-6.719	-7.337	INCID
	DEVM	8.825	11.763	10.742	13.269	10.736	4.170	10.660	12.356	15.452	DEVM
	P 2	14.555	14.602	14.643	14.689	14.725	14.699	14.581	14.519	14.462	P 2
	P 3	19.419	20.063	20.703	21.374	21.126	21.002	20.920	20.811	20.631	P 3
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	T 3	568.800	568.000	566.300	586.800	583.600	583.700	585.900	586.800	587.400	T 3
STATOR F	PCT SPAN	95.81	92.01	86.21	69.91	49.21	29.51	14.11	9.31	4.51	PCT SPAN
	DIA	16.659	16.803	17.023	17.641	18.426	19.173	19.757	19.959	20.121	DIA
STATOR-L.E.	BETA 3	70.594	62.600	57.652	46.676	45.387	45.651	47.477	48.571	49.768	BETA 3
STATOR-T.E.	BETA 4	4.590	5.006	5.539	5.987	5.057	5.915	6.045	6.420	8.698	BETA 4
	V 3	866.42	892.87	914.41	910.96	880.29	852.21	831.28	820.81	805.67	V 3
	V 4	850.35	874.93	898.76	964.61	966.00	964.69	947.80	935.48	920.95	V 4
	VZ 3	288.53	413.66	489.23	631.59	617.65	594.61	560.39	541.62	518.52	VZ 3
	VZ 4	847.58	871.49	894.28	958.63	961.06	957.20	934.43	921.05	904.57	VZ 4
	V-THETA 3	816.08	791.25	772.44	668.50	626.08	608.27	611.06	613.71	613.26	V-THETA 3
	V-THETA 4	68.05	76.34	88.66	99.71	85.06	99.17	132.07	136.23	138.35	V-THETA 4
	M 3	0.7652	0.7899	0.8128	0.8276	0.7882	0.7600	0.7377	0.7268	0.7116	M 3
	M 4	0.7474	0.7722	0.8172	0.8716	0.8761	0.8746	0.8552	0.8422	0.8264	M 4
	TURN(PR)	66.004	57.392	52.107	40.676	40.281	39.641	39.305	40.015	40.929	TURN(PR)
	UUBAR	0.1364	0.1448	0.1160	0.0963	0.1060	0.1066	0.1192	0.1781	0.1902	UUBAR
	LOSS PARA	0.0435	0.0466	0.0379	0.0328	0.0380	0.0400	0.0616	0.0696	0.0749	LOSS PARA
	DFAC	0.2678	0.2800	0.2418	0.1663	0.1761	0.0963	0.0890	0.0936	0.0966	DFAC
	EFFP	-1.6633	-1.8964	10.4764	1.7400	1.4035	1.2981	1.4263	1.4807	1.5075	EFFP
	INCID	5.594	2.987	1.745	-5.663	-7.268	-9.009	-10.185	-10.310	-10.651	INCID
	DEVM	9.840	11.006	11.338	10.683	9.151	9.601	12.010	11.576	10.940	DEVM
	P 3	19.419	20.063	20.703	21.374	21.126	21.002	20.920	20.811	20.631	P 3
	P 4	18.568	19.083	19.857	20.681	20.373	20.240	19.609	19.713	19.506	P 4
	T 3	568.800	568.000	566.300	586.800	583.600	583.700	585.900	586.800	587.400	T 3
	T 4	568.800	568.000	566.300	586.800	583.600	583.700	585.900	586.800	587.400	T 4

Table B-4. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 93.51 Equivalent Rotor Speed = 9290.90 Equivalent Weight Flow = 37.484 lb/sec
Uniform Inlet
U.S. Customary Units

INLET GUIDE VANE	PCT SPAN	95.79	91.71	86.89	70.41	49.21	29.10	13.90	6.00	4.70	PCT SPAN
	DIA	16.749	16.991	17.276	18.252	19.507	20.697	21.603	21.887	22.142	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	12.872	12.385	12.043	12.074	13.162	13.371	14.010	14.380	14.777	BETA 2
	V 1	400.93	399.84	401.42	406.92	406.42	396.52	372.03	361.17	352.72	V 1
	V 2	451.89	459.00	463.24	468.89	465.64	456.43	442.60	434.15	429.38	V 2
	VZ 1	400.92	399.82	401.39	406.77	406.00	395.79	372.09	360.19	351.68	VZ 1
	VZ 2	440.52	448.28	452.95	458.92	452.14	441.74	424.21	415.02	411.40	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	100.67	98.44	96.63	97.52	105.74	105.00	106.24	107.17	108.52	V-THETA 2
	M 1	0.3638	0.3628	0.3643	0.3690	0.3690	0.3597	0.3379	0.3269	0.3191	M 1
	M 2	0.4116	0.4183	0.4223	0.4255	0.4245	0.4158	0.4028	0.3958	0.3904	M 2
	TURN	-12.87	-12.38	-12.04	-12.08	-13.13	-13.30	-13.90	-14.26	-14.64	TURN
	UUBAR	0.0603	0.0347	0.0160	0.0194	0.0155	0.0367	0.0324	0.0346	0.0415	UUBAR
	DFAC	-0.026	-0.049	-0.056	-0.049	-0.037	-0.038	-0.062	-0.075	-0.078	DFAC
	EFFP	0.8262	0.9068	0.9567	0.9454	0.9554	0.9030	0.9300	0.9321	0.9241	EFFP
	INCID	5.9000	5.9200	5.9700	6.2500	6.6600	7.0000	7.3200	7.4200	7.4200	INCID
	DEVM	4.128	4.916	5.640	6.738	7.115	8.310	8.798	8.792	8.640	DEVM
	P 1	14.624	14.668	14.666	14.727	14.763	14.748	14.635	14.593	14.552	P 1
	P 2	14.547	14.604	14.645	14.702	14.743	14.702	14.599	14.537	14.491	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	UUBAR FS										UUBAR FS
	PI FS										PI FS
	LOSS PARA FS										LOSS PARA FS
ROTOR F	PCT SPAN	95.01	89.99	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA	16.721	16.943	17.164	17.878	18.713	19.598	20.262	20.463	20.705	DIA
ROTOR -L.E.	BETA 2	9.821	9.621	9.402	9.466	10.247	10.412	10.957	11.269	11.569	BETA 2
ROTOR -T.E.	BETA 3	62.047	59.422	56.613	48.716	47.112	47.011	51.794	53.204	54.537	BETA 3
	BETA(PR) 2	44.641	45.100	45.508	46.581	48.010	50.109	52.057	52.900	53.621	BETA(PR) 2
	BETA(PR) 3	-17.397	-12.090	-7.328	3.778	11.567	17.853	21.235	23.050	24.938	BETA(PR) 3
	V 2	591.04	592.28	595.70	603.78	609.36	601.78	584.88	574.73	567.77	V 2
	V 3	921.97	914.74	910.80	900.34	870.70	836.70	807.10	795.28	795.88	V 3
	VZ 2	583.27	583.96	587.67	594.76	598.40	589.41	570.87	560.07	551.93	VZ 2
	VZ 3	431.46	464.65	501.05	599.79	592.09	569.57	495.09	471.14	449.17	VZ 3
	V-THETA 2	100.97	98.99	97.30	99.16	108.17	108.30	110.52	111.59	112.98	V-THETA 2
	V-THETA 3	813.04	786.38	760.25	683.12	637.42	611.04	629.02	626.89	630.52	V-THETA 3
	V(PR) 2	819.7	827.3	838.6	865.5	895.3	920.7	930.6	930.7	932.9	V(PR) 2
	V(PR) 3	455.3	477.8	505.7	601.5	605.4	600.3	533.6	514.6	498.0	V(PR) 3
	VTHETA PR2	-576.0	-586.0	-598.2	-628.5	-664.8	-705.2	-732.2	-740.5	-749.2	VTHETA PR2
	VTHETA PR3	135.2	99.5	64.4	-39.6	-121.2	-183.5	-192.4	-200.5	-208.8	VTHETA PR3
	U 2	676.96	684.99	695.49	727.68	773.00	813.46	842.69	852.13	862.19	U 2
	U 3	677.86	686.86	695.81	722.73	758.61	794.49	821.40	830.36	839.36	U 3
	M 2	0.5458	0.5461	0.5494	0.5569	0.5628	0.5554	0.5389	0.5290	0.5217	M 2
	M 3	0.8179	0.8117	0.8095	0.8133	0.7772	0.7439	0.7070	0.6933	0.6810	M 3
	M(PR) 2	0.7558	0.7628	0.7734	0.7989	0.8270	0.8497	0.8574	0.8567	0.8581	M(PR) 2
	M(PR) 3	0.4039	0.4239	0.4494	0.5380	0.5404	0.5337	0.4703	0.4526	0.4371	M(PR) 3
	TURN(PR)	61.915	57.123	52.827	42.790	36.402	32.193	30.754	29.789	28.633	TURN(PR)
	UUBAR	0.3538	0.2958	0.2280	0.0121	-0.0098	0.0080	0.1130	0.1349	0.1534	UUBAR
	LOSS PARA	0.1087	0.0945	0.0750	0.0042	-0.0035	0.0029	0.0423	0.0504	0.0572	LOSS PARA
	DFAC	0.7246	0.6944	0.6592	0.5378	0.5379	0.5557	0.6663	0.6692	0.6899	DFAC
	EFFP	0.7612	0.7899	0.8352	0.9887	1.0066	0.9949	0.9007	0.8635	0.8678	EFFP
	EFF	0.7479	0.7780	0.8255	0.9880	1.0070	0.9946	0.8950	0.8768	0.8603	EFF
	INCID	-11.009	-9.300	-8.493	-7.255	-6.501	-5.462	-4.782	-4.833	-5.575	INCID
	DEVM	16.625	14.077	12.680	11.776	9.347	8.295	9.834	12.028	15.192	DEVM
	P 2	14.547	14.604	14.645	14.702	14.743	14.702	14.599	14.537	14.491	P 2
	P 3	21.394	21.662	21.970	22.823	22.577	22.309	21.806	21.615	21.461	P 3
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	T 3	599.500	598.200	595.900	589.000	585.400	584.700	589.100	589.700	590.300	T 3
STATOR F	PCT SPAN	95.81	92.01	86.21	69.91	49.21	29.51	14.11	9.31	4.51	PCT SPAN
	DIA	16.659	16.803	17.023	17.641	18.426	19.173	19.757	19.939	20.121	DIA
STATOR-L.E.	BETA 3	62.419	58.696	55.183	46.742	45.170	45.200	49.941	51.370	52.727	BETA 3
STATOR-T.E.	BETA 4	10.584	10.555	10.447	10.235	10.102	10.193	10.284	10.319	10.383	BETA 4
	V 3	917.51	920.82	926.78	938.87	899.24	865.16	825.95	810.74	796.95	V 3
	V 4	592.22	611.83	641.86	673.56	694.48	663.26	641.58	628.46	634.85	V 4
	VZ 3	424.80	478.43	528.95	643.19	633.36	608.46	530.31	504.88	481.39	VZ 3
	VZ 4	582.12	601.40	631.09	662.50	682.90	651.22	628.59	624.90	620.56	VZ 4
	V-THETA 3	813.24	786.75	760.56	683.54	637.13	612.73	630.67	631.77	632.54	V-THETA 3
	V-THETA 4	108.77	112.06	116.36	119.62	121.67	117.09	114.05	113.77	113.48	V-THETA 4
	M 3	0.8134	0.8178	0.8253	0.8434	0.8059	0.7722	0.7303	0.7150	0.7013	M 3
	M 4	0.5059	0.5241	0.5525	0.5852	0.6067	0.5779	0.5556	0.5525	0.5489	M 4
	TURN(PR)	51.836	48.140	44.731	36.494	35.025	34.922	39.541	40.927	42.235	TURN(PR)
	UUBAR	0.0627	0.0601	0.0480	0.0980	0.0504	0.1103	0.1216	0.1071	0.0950	UUBAR
	LOSS PARA	0.0197	0.0191	0.0155	0.0330	0.0179	0.0410	0.0467	0.0416	0.0372	LOSS PARA
	DFAC	0.6005	0.5735	0.5365	0.4894	0.4364	0.4525	0.4716	0.4691	0.4678	DFAC
	EFFP	0.9141	0.9144	0.9271	0.8409	0.9011	0.7821	0.7450	0.7645	0.7820	EFFP
	INCID	-2.581	-0.706	-0.624	-5.577	-7.485	-9.460	-7.720	-7.508	-7.668	INCID
	DEVM	15.833	16.553	16.244	14.980	14.190	14.168	14.240	13.465	12.597	DEVM
	P 3	21.394	21.662	21.970	22.823	22.577	22.309	21.806	21.615	21.461	P 3
	P 4	20.921	21.199	21.590	21.991	22.181	21.507	21.014	20.947	20.891	P 4
	T 3	599.500	598.200	595.900	589.000	585.400	584.700	589.100	589.700	590.300	T 3
	T 4	599.500	598.200	595.900	589.000	585.400	584.700	589.100	589.700	590.300	T 4

Table B-4. Blade Element Performance (Continued)
Stage F, Rotor F – Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 93.58 Equivalent Rotor Speed = 9298 Equivalent Weight Flow = 36.07 lb/sec
Uniform Inlet
U.S. Customary Units

INLET GUIDE VANE	PCT SPAN	95.79	91.71	86.89	70.41	49.21	29.10	13.80	9.00	4.70	PCT SPAN
	DIA	16.749	16.991	17.276	18.252	19.507	20.697	21.603	21.887	22.142	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	12.375	12.040	11.859	12.052	13.020	13.254	13.814	14.460	15.076	BETA 2
	V 1	380.58	381.22	384.20	389.55	388.65	375.90	352.38	341.89	330.42	V 1
	V 2	435.19	439.64	441.82	446.03	447.79	4[illegible].44	420.00	415.03	409.58	V 2
	VZ 1	380.58	381.21	384.17	389.40	386.25	3[illegible].21	351.49	340.96	329.44	VZ 1
	VZ 2	425.07	429.93	432.29	435.77	435.06	420.66	404.79	398.55	391.89	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	93.26	91.70	90.77	93.03	100.60	99.08	99.53	102.77	105.56	V-THETA 2
	M 1	0.3449	0.3455	0.3483	0.3532	0.3524	0.3406	0.3188	0.3091	0.2986	M 1
	M 2	0.3959	0.4000	0.4021	0.4060	0.4077	0.3952	0.3816	0.3770	0.3719	M 2
	TURN	-17.37	-12.04	-11.86	-12.04	-12.98	-13.18	-13.71	-14.34	-14.94	TURN
	UUBAR	0.0310	0.0308	0.0347	0.0294	0.0	0.0360	0.0360	0.0219	0.0059	UUBAR
	DFAC	-0.045	-0.056	-0.054	-0.047	-0.044	-0.043	-0.069	-0.080	-0.094	DFAC
	EFFP	0.9128	0.9187	0.9037	0.9179	0.9999	0.9076	0.9244	0.9576	0.9896	EFFP
	INCID	5.9000	5.9200	5.9700	6.2500	6.6600	7.0000	7.3200	7.4200	7.4200	INCID
	DEVM	4.625	5.261	5.824	6.760	7.257	8.427	8.992	8.713	8.344	DEVM
	P 1	14.624	14.655	14.681	14.737	14.768	14.732	14.624	14.573	14.517	P 1
	P 2	14.589	14.619	14.640	14.701	14.768	14.691	14.589	14.553	14.512	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2

ROTOR F	PCT SPAN	95.01	89.99	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA	16.721	16.943	17.164	17.828	18.713	19.598	20.262	20.483	20.705	DIA
ROTOR -L.E.	BETA 2	9.506	9.420	9.330	9.522	10.210	10.413	10.899	11.416	11.887	BETA 2
ROTOR -T.E.	BETA 3	61.731	59.759	57.543	49.311	47.781	47.941	52.704	54.696	56.697	BETA 3
	BETA(PR) 2	46.268	46.870	47.381	48.328	49.569	52.003	54.019	54.602	55.261	BETA(PR) 2
	BETA(PR) 3	-16.376	-11.671	-7.248	3.928	11.671	18.283	21.899	23.758	26.137	BETA(PR) 3
	V 2	566.43	563.38	563.83	572.16	581.13	567.81	550.27	544.11	537.24	V 2
	V 3	916.36	905.89	898.16	900.96	864.00	826.27	792.64	777.83	761.59	V 3
	VZ 2	558.65	555.78	556.35	563.99	571.42	556.13	537.19	529.97	522.12	VZ 2
	VZ 3	433.26	455.48	481.87	587.21	580.12	552.64	479.36	448.63	417.31	VZ 3
	V-THETA 2	93.54	92.21	91.41	94.80	102.92	102.19	103.63	107.01	109.90	V-THETA 2
	V-THETA 3	805.70	781.48	757.63	682.96	639.36	612.51	629.34	633.52	635.23	V-THETA 3
	V(PR) 2	808.1	813.0	821.7	848.5	881.9	904.8	916.3	916.9	918.4	V(PR) 2
	V(PR) 3	454.7	467.7	486.2	589.0	593.4	583.9	519.0	492.6	467.4	V(PR) 3
	VTHETA PR2	-583.9	-593.3	-604.6	-633.6	-670.7	-711.9	-739.9	-745.8	-752.9	VTHETA PR2
	VTHETA PR3	127.3	94.1	61.3	-40.3	-119.8	-182.6	-192.7	-197.5	-204.8	VTHETA PR3
	U 2	677.48	685.51	696.02	728.23	773.59	814.08	843.33	852.79	862.85	U 2
	U 3	678.37	687.38	696.35	723.29	759.19	795.09	822.03	831.00	840.01	U 3
	M 2	0.5209	0.5180	0.5184	0.5265	0.5359	0.5223	0.5053	0.4994	0.4927	M 2
	M 3	0.8121	0.8025	0.7963	0.8013	0.7697	0.7329	0.6972	0.6825	0.6666	M 3
	M(PR) 2	0.7432	0.7474	0.7555	0.7808	0.8123	0.8323	0.8414	0.8415	0.8423	M(PR) 2
	M(PR) 3	0.4030	0.4143	0.4311	0.5238	0.5286	0.5179	0.4565	0.4322	0.4091	M(PR) 3
	TURN(PR)	62.528	58.477	54.620	44.388	37.856	33.659	32.058	30.789	29.083	TURN(PR)
	UUBAR	0.3382	0.2907	0.2346	0.0103	-0.0104	0.0126	0.1159	0.1465	0.1737	UUBAR

	LOSS PARA	0.1045	0.0930	0.0772	0.0036	-0.0037	0.0046	0.0432	0.0545	0.0641	LOSS PARA
	DFAC	0.7214	0.7022	0.6772	0.5451	0.5475	0.5693	0.6600	0.6919	0.7219	DFAC
	EFFP	0.7771	0.7993	0.8356	0.9359	1.0048	0.9907	0.9023	0.8784	0.8550	EFFP
	EFF	0.7643	0.7876	0.8259	0.9318	1.0051	0.9901	0.8965	0.8713	0.8468	EFF
	INCID	-9.382	-7.530	-6.671	-5.507	-4.942	-3.567	-2.816	-3.128	-3.931	INCID
	DEVM	17.640	14.493	12.760	11.925	9.452	8.724	10.496	12.733	16.396	DEVM
	P 2	14.589	14.619	14.640	14.701	14.768	14.691	14.589	14.553	14.512	P 2
	P 3	21.648	21.827	22.031	22.881	22.748	22.400	21.934	21.724	21.499	P 3
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	T 3	599.700	598.600	596.500	593.700	586.500	585.800	590.200	590.900	591.500	T 3

STATOR F	PCT SPAN	95.81	92.01	86.21	69.81	49.21	29.51	14.11	9.31	4.51	PCT SPAN
	DIA	16.659	16.803	17.023	17.641	18.426	19.173	19.757	19.939	20.121	DIA
STATOR-L.E.	BETA 3	62.081	59.052	56.153	47.471	45.856	46.151	50.851	52.827	54.813	BETA 3
STATOR-T.E.	BETA 4	11.113	11.175	11.175	11.166	10.599	10.670	10.253	10.151	10.138	BETA 4
	V 3	912.04	911.66	912.67	926.36	891.38	853.23	815.49	799.30	781.58	V 3
	V 4	561.01	572.85	586.77	660.44	648.07	624.91	608.00	601.16	595.79	V 4
	VZ 3	427.03	468.81	508.29	627.94	620.23	612.63	595.74	588.70	582.79	VZ 3
	VZ 4	550.46	561.92	585.34	647.65	636.25	614.20	630.99	635.42	637.76	VZ 4
	V-THETA 3	805.89	781.85	757.94	683.39	639.05	615.42	630.99	635.42	637.76	V-THETA 3
	V-THETA 4	108.13	111.01	115.64	127.60	119.06	115.42	107.76	105.40	104.21	V-THETA 4
	M 3	0.8078	0.8082	0.8109	0.8289	0.7971	0.7595	0.7193	0.7031	0.6857	M 3
	M 4	0.4779	0.4889	0.5113	0.5706	0.5629	0.5419	0.5244	0.5178	0.5127	M 4
	TURN(PR)	50.968	47.876	44.974	36.262	35.215	35.398	40.483	42.554	44.548	TURN(PR)
	UUBAR	0.0616	0.0631	0.0516	0.0493	0.0717	0.0979	0.0961	0.0855	0.0653	UUBAR
	LOSS PARA	0.0193	0.0200	0.0166	0.0165	0.0254	0.0363	0.0369	0.0332	0.0256	LOSS PARA
	DFAC	0.6299	0.6106	0.5782	0.4948	0.4853	0.4912	0.5092	0.5140	0.5144	DFAC
	EFFP	0.9203	0.9163	0.9280	0.9214	0.8781	0.8269	0.8194	0.8347	0.8685	EFFP
	INCID	-2.919	-0.350	0.347	-4.898	-6.799	-8.508	-6.808	-6.048	-5.578	INCID
	DEVM	16.363	17.174	16.973	15.890	14.686	14.644	14.200	13.298	12.374	DEVM
	P 3	21.648	21.827	22.031	22.881	22.748	22.400	21.934	21.724	21.499	P 3
	P 4	21.182	21.346	21.632	22.472	22.198	21.704	21.320	21.202	21.120	P 4
	T 3	599.700	598.600	596.500	593.700	586.500	585.800	590.200	590.900	591.500	T 3
	T 4	599.700	598.600	596.500	593.700	586.500	585.800	590.200	590.900	591.500	T 4

Table B-4. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 93.72 Equivalent Rotor Speed = 9311.98 Equivalent Weight Flow = 34.722 lb/sec
Uniform Inlet
U.S. Customary Units

INLET GUIDE VANE	PCT SPAN	95.76	91.71	86.89	70.41	49.21	29.10	13.80	9.00	4.70	PCT SPAN
	DIA	16.749	16.991	17.276	18.252	19.507	20.697	21.603	21.887	22.142	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	12.644	12.186	11.930	12.165	12.848	13.348	13.666	14.071	14.456	BETA 2
	V 1	370.04	371.09	373.48	376.58	376.71	369.36	346.09	333.93	321.37	V 1
	V 2	416.28	422.00	425.67	420.54	430.40	422.75	407.11	400.43	393.55	V 2
	VZ 1	370.03	371.08	373.45	376.44	376.32	364.68	345.22	333.02	320.42	VZ 1
	VZ 2	406.16	412.45	416.39	420.46	418.45	409.19	397.60	385.18	377.61	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	91.15	89.07	87.97	90.64	95.44	97.09	98.46	96.55	97.35	V-THETA 2
	M 1	0.3351	0.3361	0.3383	0.3412	0.3413	0.3358	0.3130	0.3018	0.2903	M 1
	M 2	0.3781	0.3835	0.3869	0.3915	0.3914	0.3842	0.3696	0.3634	0.3570	M 2
	TURN	-12.65	-12.18	-11.93	-12.15	-12.81	-13.28	-13.56	-13.95	-14.32	TURN
	UUBAR	0.0651	0.0554	0.0455	0.0268	0.0178	0.0189	0.0530	0.0456	0.0370	UUBAR
	DFAC	-0.028	-0.040	-0.044	-0.045	-0.037	-0.044	-0.056	-0.070	-0.087	DFAC
	EFFP	0.8108	0.8477	0.8737	0.9236	0.9475	0.9495	0.8835	0.9092	0.9335	EFFP
	INCID	5.4000	5.9200	6.4700	6.2500	6.6600	7.0000	7.3200	7.4200	7.4200	INCID
	DEVM	4.351	5.116	5.753	6.647	7.429	8.333	9.139	9.098	8.959	DEVM
	P 1	14.636	14.667	14.687	14.728	14.758	14.728	14.646	14.585	14.524	P 1
	P 2	14.565	14.606	14.636	14.697	14.738	14.708	14.595	14.545	14.494	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	UUBAR FS										UUBAR FS
	P1 FS										P1 FS
	LOSS PARA FS										LOSS PARA FS

ROTOR F	PCT SPAN	95.01	89.99	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA	16.721	16.943	17.164	17.828	18.713	19.598	20.262	20.483	20.705	DIA
ROTOR -L.E.	BETA 2	9.778	9.588	9.435	9.662	10.139	10.530	10.831	11.165	11.460	BETA 2
ROTOR -T.E.	BETA 3	60.851	58.779	56.658	49.579	47.511	48.089	52.410	54.280	55.944	BETA 3
	BETA(PR) 2	47.698	48.390	48.777	49.646	51.122	53.010	55.175	55.944	56.760	BETA(PR) 2
	BETA(PR) 3	-15.316	-10.910	-6.977	4.185	12.341	18.155	21.473	23.111	25.248	BETA(PR) 3
	V 2	538.32	537.72	540.46	549.46	555.76	550.24	531.05	522.48	513.62	V 2
	V 3	919.80	912.89	908.18	895.93	859.63	828.00	799.03	785.97	771.60	V 3
	VZ 2	530.50	530.21	533.12	541.39	545.94	538.72	518.55	509.33	499.92	VZ 2
	VZ 3	447.21	472.47	499.00	580.74	580.18	552.22	486.46	457.44	431.19	V 3
	V-THETA 2	91.43	89.56	88.59	92.17	97.63	100.14	99.21	100.53	101.35	V-THETA 2
	V-THETA 3	801.87	779.49	758.46	681.88	633.39	615.21	631.91	636.62	637.92	V-THETA 3
	V(PR) 2	791.3	798.4	809.0	836.3	870.5	896.8	909.8	911.4	914.0	V(PR) 2
	V(PR) 3	466.9	483.8	503.2	582.7	594.9	583.0	525.1	500.4	479.4	V(PR) 3
	VTHETA PR2	-587.1	-597.0	-608.5	-637.2	-677.1	-715.2	-745.4	-753.5	-762.8	VTHETA PR2
	VTHETA PR3	122.5	91.1	61.1	-42.5	-126.9	-181.1	-191.4	-195.4	-203.3	VTHETA PR3
	U 2	678.50	686.55	697.07	729.33	774.76	815.31	844.60	854.07	864.14	U 2
	U 3	679.39	688.41	697.39	724.37	760.33	796.29	823.27	832.25	841.27	U 3
	M 2	0.4938	0.4932	0.4958	0.5045	0.5106	0.5053	0.4868	0.4786	0.4701	M 2
	M 3	0.8157	0.8096	0.8061	0.7993	0.7655	0.7340	0.7028	0.6894	0.6751	M 3
	M(PR) 2	0.7258	0.7324	0.7422	0.7679	0.7998	0.8235	0.8340	0.8368	0.8366	M(PR) 2
	M(PR) 3	0.4141	0.4291	0.4467	0.5199	0.5297	0.5168	0.4619	0.4389	0.4194	M(PR) 3
	TURN(PR)	63.104	59.240	55.745	45.449	38.741	34.796	33.640	32.770	31.470	TURN(PR)
	UUBAR	0.3542	0.2985	0.2379	0.0495	0.0198	0.0154	0.1389	0.1701	0.1949	UUBAR
	LOSS PARA	0.1100	0.0958	0.0783	0.0171	0.0071	0.0167	0.0519	0.0636	0.0725	LOSS PARA
	DFAC	0.6993	0.6769	0.6526	0.5466	0.5396	0.5684	0.6539	0.6858	0.7125	DFAC
	EFFP	0.7761	0.8040	0.8415	0.9657	0.9835	0.9620	0.8883	0.8630	0.8417	EFFP
	EFF	0.7634	0.7935	0.8320	0.9635	0.9825	0.9597	0.8817	0.8550	0.8326	EFF
	INCID	-7.752	-6.010	-5.225	-4.189	-3.388	-2.559	-1.658	-1.782	-2.429	INCID
	DEVM	16.694	15.250	13.030	12.182	10.121	8.595	10.071	12.089	15.501	DEVM
	P 2	14.565	14.606	14.636	14.697	14.738	14.708	14.595	14.545	14.494	P 2
	P 3	21.583	21.847	22.122	22.662	22.469	22.255	21.898	21.715	21.521	P 3
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	T 3	599.500	598.400	596.800	589.600	586.300	586.600	591.000	592.300	593.200	T 3

STATOR F	PCT SPAN	95.81	92.01	86.21	69.91	49.21	29.51	14.11	9.31	4.51	PCT SPAN
	DIA	16.659	16.803	17.023	17.661	18.426	19.173	19.757	19.939	20.121	DIA
STATOR-L.E.	BETA 3	61.187	58.071	55.249	47.690	45.636	46.282	50.543	52.398	54.060	BETA 3
STATOR-T.E.	BETA 4	12.383	12.282	12.068	11.513	11.136	10.856	10.001	9.405	8.900	BETA 4
	V 3	915.39	918.90	923.56	922.90	886.38	855.13	822.47	808.11	792.37	V 3
	V 4	526.88	544.85	574.46	624.02	612.15	589.45	579.55	571.55	561.48	V 4
	VZ 3	441.17	485.96	526.40	621.05	619.18	589.91	521.48	491.92	463.94	VZ 3
	VZ 4	514.60	532.32	561.65	611.15	599.91	577.51	568.31	560.94	551.20	VZ 4
	V-THETA 3	802.06	779.85	758.77	682.30	633.09	616.91	633.57	638.72	639.96	V-THETA 3
	V-THETA 4	112.98	115.89	120.08	124.48	118.09	110.75	100.21	92.92	86.31	V-THETA 4
	M 3	0.8113	0.8157	0.8216	0.8266	0.7922	0.7608	0.7256	0.7107	0.6950	M 3
	M 4	0.4477	0.4640	0.4911	0.5393	0.5300	0.5092	0.4982	0.4905	0.4810	M 4
	TURN(PR)	48.804	45.788	43.177	36.165	34.458	35.343	40.426	42.866	45.024	TURN(PR)
	UUBAR	0.0618	0.0658	0.0553	0.0411	0.0548	0.0920	0.0765	0.0820	0.0772	UUBAR
	LOSS PARA	0.0193	0.0208	0.0177	0.0138	0.0194	0.0341	0.0333	0.0319	0.0304	LOSS PARA
	DFAC	0.6656	0.6417	0.6061	0.5320	0.5209	0.5370	0.5527	0.5636	0.5746	DFAC
	EFFP	0.9257	0.9186	0.9282	0.9403	0.9157	0.8560	0.8567	0.8624	0.8691	EFFP
	INCID	-3.813	-1.331	-0.558	-4.628	-7.019	-8.378	-7.117	-6.478	-6.333	INCID
	DEVM	17.633	18.281	17.866	16.257	15.223	14.829	13.958	12.556	11.143	DEVM
	P 3	21.583	21.847	22.122	22.662	22.469	22.255	21.898	21.715	21.521	P 3
	P 4	21.114	21.338	21.684	22.326	22.051	21.603	21.338	21.206	21.063	P 4
	T 3	599.500	598.400	596.800	589.600	586.300	586.600	591.000	592.300	593.200	T 3
	T 4	599.500	598.400	596.800	589.600	586.300	586.600	591.000	592.300	593.200	T 4

Table B-4. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed =93.58 Equivalent Rotor Speed =9298.59 Equivalent Weight Flow = 33.614 lb/sec
Uniform Inlet
U.S. Customary Units

INLET GUIDE VANE	PCT SPAN	95.79	91.71	86.89	70.41	49.21	29.10	13.80	9.00	4.70	PCT SPAN
	DIA	16.749	16.991	17.276	18.252	19.507	20.697	21.603	21.887	22.142	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	12.365	11.976	11.731	11.912	13.043	13.346	13.777	14.203	14.544	BETA 2
	V 1	355.28	353.18	355.90	361.39	361.73	348.82	329.24	322.26	313.07	V 1
	V 2	399.60	404.76	407.69	412.54	411.04	402.44	389.30	383.46	376.12	V 2
	VZ 1	355.27	353.16	355.87	361.25	361.36	348.18	328.41	321.38	312.15	VZ 1
	VZ 2	390.29	395.91	399.09	403.26	399.32	389.53	375.26	368.65	360.75	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	85.71	83.98	82.87	85.07	92.50	92.41	92.03	93.31	93.59	V-THETA 2
	M 1	0.3215	0.3196	0.3221	0.3271	0.3275	0.3155	0.2975	0.2911	0.2826	M 1
	M 2	0.3626	0.3674	0.3701	0.3747	0.3733	0.3652	0.3530	0.3476	0.3408	M 2
	TURN	-12.39	-11.97	-11.73	-11.90	-13.01	-13.28	-13.67	-14.08	-14.41	TURN
	UUBAR	0.0555	0.0306	0.0251	0.0146	0.0145	0.0052	0.0059	0.0184	0.0325	UUBAR
	DFAC	-0.028	-0.050	-0.051	-0.045	-0.029	-0.041	-0.051	-0.051	-0.066	DFAC
	EFFP	0.8334	0.9146	0.9289	0.9563	0.9547	0.9852	0.9861	0.9594	0.9341	EFFP
	INCID	5.9000	5.9200	5.9700	6.2500	6.6600	7.0000	7.3200	7.4200	7.4200	INCID
	DEVM	4.615	5.325	5.952	6.900	7.234	8.335	9.028	8.967	8.872	DEVM
	P 1	14.647	14.657	14.677	14.728	14.759	14.718	14.636	14.606	14.565	P 1
	P 2	14.590	14.626	14.652	14.713	14.744	14.713	14.631	14.590	14.539	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	UUBAR FS										UUBAR FS
	P1 FS										P1 FS
	LOSS PARA FS										LOSS PARA FS
ROTOR F	PCT SPAN	95.01	89.99	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA	16.721	16.943	17.164	17.828	18.713	19.598	20.262	20.483	20.705	DIA
ROTOR -L.E.	BETA 2	9.645	9.471	9.327	9.513	10.357	10.598	10.978	11.328	11.590	BETA 2
ROTOR -T.E.	BETA 3	54.905	56.005	55.921	48.935	47.177	48.579	52.928	54.837	56.584	BETA 3
	BETA(PR) 2	49.405	49.899	50.326	51.191	52.672	54.673	56.605	57.308	58.173	BETA(PR) 2
	BETA(PR) 3	-14.825	-10.809	-6.967	4.284	12.198	18.273	21.230	22.632	24.909	BETA(PR) 3
	V 2	514.17	513.15	514.96	523.63	527.47	520.47	505.10	497.79	488.35	V 2
	V 3	927.96	921.80	916.38	900.86	863.08	822.42	798.07	787.32	771.97	V 3
	VZ 2	506.94	506.19	508.13	516.17	517.80	509.46	492.96	485.00	475.11	VZ 2
	VZ 3	464.42	467.68	512.31	591.61	586.20	543.26	480.18	452.53	424.27	VZ 3
	V-THETA 2	85.96	84.45	83.45	86.50	94.63	95.32	95.63	97.15	97.44	V-THETA 2
	V-THETA 3	801.34	780.53	758.76	679.01	632.92	615.76	635.55	642.38	643.04	V-THETA 3
	V(PR) 2	774.1	785.9	795.9	823.8	854.6	882.3	897.3	899.7	902.7	V(PR) 2
	V(PR) 3	483.8	499.2	517.6	593.7	600.7	573.9	517.5	492.8	470.4	V(PR) 3
	VTHETA PR2	-591.6	-601.1	-612.6	-641.6	-679.0	-718.8	-747.8	-755.7	-765.5	VTHETA PR2
	VTHETA PR3	122.9	93.1	62.4	-44.3	-126.7	-179.4	-186.5	-188.7	-197.0	VTHETA PR3
	U 2	677.52	685.56	696.07	726.28	772.64	814.13	843.39	852.84	862.90	U 2
	U 3	678.42	687.42	696.39	723.33	759.24	795.15	822.08	831.05	840.06	U 3
	M 2	0.4706	0.4697	0.4714	0.4797	0.4834	0.4767	0.4620	0.4550	0.4460	M 2
	M 3	0.8236	0.8181	0.8139	0.8040	0.7686	0.7281	0.7013	0.6901	0.6747	M 3
	M(PR) 2	0.7131	0.7154	0.7286	0.7546	0.7831	0.8080	0.8207	0.8224	0.8245	M(PR) 2
	M(PR) 3	0.4294	0.4430	0.4597	0.5298	0.5351	0.5081	0.4547	0.4319	0.4111	M(PR) 3
	TURN(PR)	64.124	60.849	57.245	46.895	40.435	36.342	35.316	34.623	33.225	TURN(PR)
	UUBAR	0.3550	0.2959	0.2324	0.0434	0.0164	0.0789	0.1696	0.2005	0.2280	UUBAR
	LOSS PARA	0.1105	0.0950	0.0765	0.0150	0.0059	0.0290	0.0635	0.0752	0.0851	LOSS PARA
	DFAC	0.6750	0.6547	0.6311	0.5275	0.5250	0.5740	0.6808	0.6943	0.7230	DFAC
	EFFP	0.7825	0.8122	0.8497	0.9689	0.9804	0.9358	0.8667	0.8444	0.8195	EFFP
	EFF	0.7700	0.8011	0.8408	0.9670	0.9855	0.9320	0.8589	0.8355	0.8093	EFF
	INCID	-6.245	-4.501	-3.675	-2.644	-1.836	-0.894	-0.225	-0.415	-1.012	INCID
	DEVM	14.182	13.350	13.080	12.281	9.977	8.714	9.829	11.612	13.163	DEVM
	P 2	14.590	14.626	14.652	14.713	14.744	14.713	14.631	14.590	14.539	P 2
	P 3	21.740	22.031	22.302	22.776	22.532	22.087	21.837	21.704	21.490	P 3
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	T 3	600.000	599.100	597.400	590.000	586.500	587.200	591.900	593.300	594.400	T 3
STATOR F	PCT SPAN	95.81	92.01	86.21	69.91	49.21	29.51	14.11	9.31	4.51	PCT SPAN
	DIA	16.659	16.903	17.023	17.641	18.426	19.173	19.757	19.939	20.121	DIA
STATOR-L.E.	BETA 3	60.235	57.288	54.495	47.043	45.298	46.783	51.036	52.914	54.658	BETA 3
STATOR-T.E.	BETA 4	12.845	11.634	12.369	11.872	11.445	11.125	9.998	9.270	8.692	BETA 4
	V 3	923.35	928.12	932.52	928.65	890.33	848.80	821.36	809.54	792.72	V 3
	V 4	511.21	531.54	564.30	611.64	595.30	572.65	566.74	562.42	555.42	V 4
	VZ 3	456.38	501.56	541.53	632.64	625.68	580.19	515.35	487.04	457.46	VZ 3
	VZ 4	498.35	518.61	551.09	598.25	582.77	560.54	555.75	552.20	545.54	VZ 4
	V-THETA 3	801.53	780.69	759.07	679.43	632.22	617.46	637.22	644.30	645.10	V-THETA 3
	V-THETA 4	113.64	110.25	120.85	125.76	117.98	110.23	97.98	90.13	83.40	V-THETA 4
	M 3	0.8189	0.8244	0.8302	0.8322	0.7961	0.7541	0.7235	0.7115	0.6945	M 3
	M 4	0.4337	0.4520	0.4816	0.5276	0.5145	0.4937	0.4863	0.4818	0.4751	M 4
	TURN(PR)	47.391	45.652	42.122	35.158	33.811	35.575	40.921	43.517	45.830	TURN(PR)
	UUBAR	0.0903	0.0940	0.0767	0.0608	0.0757	0.0810	0.0794	0.0739	0.0586	UUBAR
	LOSS PARA	0.0281	0.0296	0.0256	0.0204	0.0267	0.0300	0.0306	0.0288	0.0231	LOSS PARA
	DFAC	0.6850	0.6599	0.6606	0.5467	0.5416	0.5538	0.5705	0.5798	0.5865	DFAC
	EFFP	0.8949	0.8875	0.9009	0.9150	0.8896	0.8776	0.8735	0.8802	0.9029	EFFP
	INCID	-4.765	-2.115	-1.312	-5.278	-7.357	-7.877	-6.624	-5.961	-5.733	INCID
	DEVM	16.094	16.633	18.166	16.616	15.531	15.096	13.955	12.421	10.937	DEVM
	P 3	21.740	22.031	22.302	22.776	22.532	22.087	21.837	21.704	21.490	P 3
	P 4	21.040	21.285	21.663	22.266	21.949	21.526	21.326	21.245	21.143	P 4
	T 3	600.000	599.100	597.400	590.000	586.500	587.200	591.900	593.300	594.400	T 3
	T 4	600.000	599.100	597.400	590.000	586.500	587.200	591.900	593.300	594.400	T 4

ORIGINAL PAGE IS
OF POOR QUALITY

Table B-4. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 93.95 Equivalent Rotor Speed = 9335.00 Equivalent Weight Flow = 32.400 lb/sec
Uniform Inlet
U.S. Customary Units

INLET GUIDE VANE	PCT SPAN	95.79	91.71	86.89	70.41	49.21	29.10	13.80	9.00	4.70	PCT SPAN
	DIA	16.749	16.991	17.276	18.252	19.507	20.697	21.603	21.887	22.142	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	12.316	11.941	11.709	11.739	12.704	13.090	14.030	14.374	14.689	BETA 2
	V 1	344.22	344.62	349.02	352.14	352.72	340.30	318.53	307.12	295.57	V 1
	V 2	381.39	386.64	391.29	396.73	394.28	386.16	371.66	365.69	360.17	V 2
	VZ 1	344.21	344.61	348.99	352.00	352.35	339.68	317.73	306.29	294.70	VZ 1
	VZ 2	372.61	378.24	383.06	388.05	383.56	374.16	357.87	351.30	345.22	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	81.35	79.49	79.79	80.64	86.46	87.00	89.42	90.03	90.50	V-THETA 2
	M 1	0.3113	0.3117	0.3157	0.3186	0.3191	0.3077	0.2877	0.2772	0.2666	M 1
	M 2	0.3457	0.3505	0.3549	0.3589	0.3576	0.3501	0.3366	0.3311	0.3260	M 2
	TURN	-12.32	-11.94	-11.71	-11.73	-12.67	-13.02	-13.92	-14.25	-14.55	TURN
	UUBAR	0.0482	0.0374	0.0312	0.0107	0.0304	0.0326	0.0436	0.0336	0.0145	UUBAR
	DFAC	-0.013	-0.028	-0.029	-0.033	-0.015	-0.026	-0.044	-0.060	-0.080	DFAC
	EFFP	0.8314	0.8787	0.8961	0.9052	0.8958	0.9020	0.8960	0.9281	0.9718	EFFP
	INCID	5.9000	5.9200	5.9700	6.2500	6.6600	7.0000	7.3200	7.4200	7.4200	INCID
	DEVM	4.684	5.360	5.974	7.073	7.573	8.589	8.778	8.798	8.778	DEVM
	P 1	14.627	14.652	14.683	14.724	14.759	14.729	14.642	14.591	14.540	P 1
	P 2	14.581	14.617	14.652	14.713	14.729	14.698	14.607	14.566	14.530	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	UUBAR FS										UUBAR FS
	P1 FS										P1 FS
	LOSS PARA FS										LOSS PARA FS
ROTOR F	PCT SPAN	95.01	89.99	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA	16.721	16.943	17.164	17.828	18.713	19.598	20.262	20.483	20.705	DIA
ROTOR -L.E.	BETA 2	9.620	9.489	9.348	9.416	10.138	10.446	11.233	11.516	11.753	BETA 2
ROTOR -T.E.	BETA 3	61.170	59.231	56.971	48.977	47.609	49.043	53.754	55.660	57.187	BETA 3
	BETA(PR) 2	51.193	51.627	51.878	52.704	54.291	56.218	58.167	58.895	59.607	BETA(PR) 2
	BETA(PR) 3	-15.431	-11.516	-7.550	4.299	12.103	18.141	20.495	21.712	23.306	BETA(PR) 3
	V 2	488.26	487.95	492.19	501.45	503.59	497.01	479.88	472.47	465.73	V 2
	V 3	918.33	915.42	917.79	903.70	863.76	824.22	804.71	795.84	786.87	V 3
	VZ 2	481.39	481.27	485.63	494.44	494.69	486.74	467.95	460.02	452.84	VZ 2
	VZ 3	442.05	467.61	497.38	592.97	581.87	539.45	474.92	448.09	425.57	VZ 3
	V-THETA 2	81.59	80.44	79.94	81.99	88.45	89.74	92.93	93.74	94.22	V-THETA 2
	V-THETA 3	803.09	785.39	765.04	681.59	637.44	621.51	647.79	655.88	666.02	V-THETA 3
	V(PR) 2	768.1	775.3	786.7	816.2	848.2	876.6	888.7	892.0	896.7	V(PR) 2
	V(PR) 3	461.8	479.8	502.2	595.1	596.1	569.5	509.3	484.8	466.0	V(PR) 3
	VTHETA PR2	-598.6	-607.8	-618.8	-649.1	-688.2	-727.6	-753.8	-762.4	-772.1	VTHETA PR2
	VTHETA PR3	122.0	95.3	68.9	-44.6	-124.8	-176.7	-177.5	-178.4	-183.3	VTHETA PR3
	U 2	680.18	688.24	698.79	731.13	776.67	817.32	846.69	856.18	866.28	U 2
	U 3	681.07	690.12	699.12	726.16	762.21	798.26	825.30	834.31	843.35	U 3
	M 2	0.4459	0.4456	0.4497	0.4585	0.4605	0.4543	0.4380	0.4310	0.4246	M 2
	M 3	0.8133	0.8107	0.8062	0.8061	0.7683	0.7288	0.7061	0.6966	0.6871	M 3
	M(PR) 2	0.7016	0.7081	0.7187	0.7462	0.7757	0.8012	0.8111	0.8137	0.8175	M(PR) 2
	M(PR) 3	0.4090	0.4249	0.4453	0.5308	0.5302	0.5035	0.4470	0.4243	0.4069	M(PR) 3
	TURN(PR)	66.514	63.080	59.418	48.394	42.151	38.023	37.615	37.132	36.261	TURN(PR)
	UUBAR	0.4102	0.2467	0.2767	0.0516	0.0396	0.0904	0.1857	0.2164	0.2388	UUBAR
	LOSS PARA	0.1273	0.1110	0.0909	0.0178	0.0147	0.0365	0.0699	0.0817	0.0902	LOSS PARA
	DFAC	0.7016	0.6787	0.6504	0.5245	0.5316	0.5813	0.6733	0.7082	0.7352	DFAC
	EFFP	0.7592	0.7900	0.8283	0.9662	0.9719	0.9240	0.8595	0.8410	0.8220	EFFP
	EFF	0.7456	0.7777	0.8179	0.9640	0.9701	0.9195	0.8511	0.8316	0.8125	EFF
	INCID	-4.457	-2.773	-2.123	-1.130	-0.217	0.654	1.341	1.177	0.427	INCID
	DEVM	18.580	14.647	12.458	12.296	9.882	8.581	9.097	10.696	13.567	DEVM
	P 2	14.581	14.617	14.652	14.713	14.729	14.698	14.607	14.566	14.530	P 2
	P 3	21.546	21.892	22.218	22.875	22.564	22.147	21.994	21.902	21.811	P 3
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	T 3	600.800	600.300	598.800	591.000	588.000	588.800	594.300	595.800	597.250	T 3
STATOR F	PCT SPAN	95.81	92.01	86.21	69.91	49.21	29.51	14.11	9.31	4.51	PCT SPAN
	DIA	16.659	16.803	17.023	17.641	18.426	19.173	19.757	19.939	20.121	DIA
STATOR-L.E.	BETA 3	61.508	58.511	55.524	47.062	45.707	47.213	51.775	53.638	55.158	BETA 3
STATOR-T.E.	BETA 4	11.762	11.792	11.844	12.031	11.213	10.127	9.001	8.279	7.674	BETA 4
	V 3	913.98	921.48	928.49	931.89	890.97	850.72	828.56	818.74	808.62	V 3
	V 4	490.27	509.27	541.54	595.18	537.78	567.01	567.71	564.23	559.69	V 4
	VZ 3	436.00	481.31	525.54	574.62	621.61	576.85	511.56	484.34	460.91	VZ 3
	VZ 4	479.95	498.46	529.91	581.[illegible]	566.08	556.83	558.31	555.44	551.33	VZ 4
	V-THETA 3	803.28	785.76	765.35	682.01	637.13	623.23	649.49	657.84	668.13	V-THETA 3
	V-THETA 4	99.44	104.06	111.12	123.99	112.22	99.45	88.44	80.82	74.28	V-THETA 4
	M 3	0.8089	0.8168	0.8250	0.8347	0.7956	0.7548	0.7293	0.7187	0.7060	M 3
	M 4	0.4150	0.4318	0.4609	0.5124	0.4980	0.4879	0.4861	0.4824	0.4779	M 4
	TURN(PR)	49.746	46.717	43.676	35.018	34.482	37.002	42.654	45.229	47.344	TURN(PR)
	UUBAR	0.0824	0.0970	0.0916	0.0868	0.0966	0.0818	0.0808	0.0798	0.0788	UUBAR
	LOSS PARA	0.0258	0.0307	0.0294	0.0290	0.0341	0.0304	0.0312	0.0312	0.0311	LOSS PARA
	DFAC	0.7101	0.6876	0.6491	0.5675	0.5659	0.5688	0.5834	0.5933	0.6020	DFAC
	EFFP	0.9062	0.8871	0.8885	0.8834	0.8648	0.8786	0.8732	0.8728	0.8727	EFFP
	INCID	-3.492	-0.892	-0.283	-5.257	-6.948	-7.446	-5.883	-5.236	-5.232	INCID
	DEVM	17.012	17.791	17.641	16.775	15.299	14.102	12.963	11.435	9.924	DEVM
	P 3	21.546	21.892	22.218	22.875	22.564	22.147	21.994	21.902	21.811	P 3
	P 4	20.925	21.139	21.485	22.147	21.821	21.576	21.464	21.393	21.322	P 4
	T 3	600.800	600.300	598.800	591.000	588.000	588.800	594.300	595.800	597.250	T 3
	T 4	600.800	600.300	598.800	591.000	588.000	588.800	594.300	595.800	597.250	T 4

Table B-4. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 82.96 Equivalent Rotor Speed = 8242.66 Equivalent Weight Flow = 36.812 lb/sec
Uniform Inlet
U.S. Customary Units

INLET GUIDE VANE	PCT SPAN	95.79	91.71	86.89	70.41	49.21	29.10	13.80	9.00	4.70	PCT SPAN
	DIA	16.749	16.991	17.276	18.252	19.507	20.697	21.603	21.887	22.142	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	12.644	12.050	11.751	12.303	13.226	13.600	14.270	14.991	15.969	BETA 2
	V 1	389.49	389.95	394.00	399.94	399.44	391.33	367.83	356.21	344.44	V 1
	V 2	442.65	449.18	453.21	459.60	456.59	448.63	434.18	427.70	421.84	V 2
	VZ 1	389.49	389.93	393.97	399.79	399.03	390.61	366.91	355.24	343.42	VZ 1
	VZ 2	431.90	439.24	443.62	448.60	443.24	433.78	417.63	409.73	401.91	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	96.89	93.76	92.28	97.84	104.18	104.94	106.22	109.72	115.01	V-THETA 2
	M 1	0.3532	0.3536	0.3574	0.3629	0.3624	0.3549	0.3331	0.3223	0.3115	M 1
	M 2	0.4029	0.4090	0.4128	0.4188	0.4160	0.4085	0.3949	0.3888	0.3833	M 2
	TURN	-12.64	-12.05	-11.75	-12.29	-13.19	-13.53	-14.16	-14.86	-15.62	TURN
	UUBAR	0.0468	0.0296	0.0248	0.0080	0.0160	0.0334	0.0332	0.0253	0.0164	UUBAR
	DFAC	-0.036	-0.055	-0.055	-0.044	-0.034	-0.032	-0.055	-0.064	-0.073	DFAC
	EFFP	0.8683	0.9211	0.9324	0.9770	0.9531	0.9089	0.9259	0.9482	0.9797	EFFP
	INCID	5.9000	5.9200	5.9700	6.2500	6.6600	7.0000	7.3200	7.4200	7.4200	INCID
	DEVM	4.356	5.251	5.932	6.509	7.051	8.082	8.539	8.185	7.458	DEVM
	P 1	14.608	14.639	14.669	14.731	14.762	14.752	14.639	14.577	14.516	P 1
	P 2	14.551	14.603	14.639	14.721	14.741	14.711	14.603	14.551	14.505	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	UUBAR FS										UUBAR FS
	P1 FS										P1 FS
	LOSS PARA FS										LOSS PARA FS
ROTOR F	PCT SPAN	95.01	89.99	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA	16.721	16.963	17.184	17.828	18.713	19.598	20.262	20.483	20.705	DIA
ROTOR -L.E.	BETA 2	9.684	9.390	9.209	9.671	10.335	10.623	11.147	11.776	12.524	BETA 2
ROTOR -T.E.	BETA 3	63.764	57.522	53.368	44.320	42.499	44.713	47.413	48.662	50.200	BETA 3
	BETA(PR) 2	41.475	42.023	42.441	43.090	44.743	46.750	48.808	49.509	50.135	BETA(PR) 2
	BETA(PR) 3	-16.878	-9.072	-4.704	5.467	12.414	18.861	22.808	24.539	26.363	BETA(PR) 3
	V 2	577.73	577.51	580.65	592.49	595.30	589.54	571.84	563.28	555.72	V 2
	V 3	769.49	805.38	819.68	836.13	804.01	746.15	715.59	702.06	687.89	V 3
	VZ 2	569.50	569.76	573.14	583.76	584.43	577.06	557.69	547.93	538.74	VZ 2
	VZ 3	348.49	431.76	488.90	597.49	592.23	529.31	483.09	463.00	439.12	VZ 3
	V-THETA 2	97.18	94.28	92.92	99.48	106.57	108.24	110.39	114.24	119.74	V-THETA 2
	V-THETA 3	707.11	678.31	657.53	583.96	542.66	524.05	525.58	525.27	527.04	V-THETA 3
	V(PR) 2	760.1	767.0	776.7	799.0	823.7	843.4	844.0	846.2	843.1	V(PR) 2
	V(PR) 3	366.7	439.7	491.1	601.1	607.4	561.1	526.4	511.5	492.7	V(PR) 3
	VTHETA PR2	-503.4	-513.4	-524.1	-546.1	-579.2	-613.4	-637.2	-641.7	-645.2	VTHETA PR2
	VTHETA PR3	105.7	68.9	40.2	-57.2	-130.4	-180.8	-203.1	-211.4	-217.6	VTHETA PR3
	U 2	600.59	607.71	617.02	645.58	685.79	721.66	747.61	755.99	764.91	U 2
	U 3	601.38	609.36	617.31	641.19	673.02	704.85	728.73	736.68	744.66	U 3
	M 2	0.5319	0.5317	0.5347	0.5463	0.5490	0.5435	0.5262	0.5179	0.5100	M 2
	M 3	0.7011	0.7174	0.7326	0.7533	0.7237	0.6669	0.6364	0.6233	0.6099	M 3
	M(PR) 2	0.6998	0.7061	0.7153	0.7373	0.7597	0.7779	0.7812	0.7780	0.7746	M(PR) 2
	M(PR) 3	0.3257	0.3916	0.4389	0.5416	0.5467	0.5015	0.4681	0.4542	0.4368	M(PR) 3
	TURN(PR)	56.233	51.045	47.138	37.613	32.286	27.826	25.435	24.911	23.722	TURN(PR)
	UUBAR	0.5234	0.4085	0.3044	0.0471	0.0158	0.1163	0.1675	0.1810	0.1971	UUBAR
	LOSS PARA	0.1613	0.1318	0.1006	0.0163	0.0057	0.0426	0.0670	0.0669	0.0726	LOSS PARA
	DFAC	0.7762	0.6760	0.6089	0.4572	0.4541	0.5223	0.5726	0.5889	0.6100	DFAC
	EFFP	0.5976	0.6696	0.7510	0.9480	0.9823	0.8712	0.8184	0.8035	0.7895	EFFP
	EFF	0.5845	0.6575	0.7409	0.9456	0.9815	0.8661	0.8115	0.7961	0.7817	EFF
	INCID	-14.175	-12.377	-11.560	-10.745	-9.768	-8.824	-8.034	-8.223	-8.608	INCID
	DEVM	17.142	17.078	15.301	13.463	10.193	9.300	11.401	13.511	16.411	DEVM
	P 2	14.551	14.603	14.639	14.721	14.741	14.711	14.603	14.551	14.505	P 2
	P 3	18.350	18.858	19.351	20.223	20.069	19.330	19.017	18.868	18.71	P 3
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	T 3	579.500	578.500	578.800	578.800	567.400	567.300	568.800	568.900	568.800	T 3
STATOR F	PCT SPAN	95.81	92.01	86.21	69.91	49.21	29.51	14.11	9.31	4.51	PCT SPAN
	DIA	16.659	16.803	17.023	17.641	18.426	19.173	19.757	19.959	20.121	DIA
STATOR-L.E.	BETA 3	63.992	57.008	52.432	43.030	41.140	43.416	46.117	47.317	48.416	BETA 3
STATOR-T.E.	BETA 4	6.157	6.523	7.434	7.561	7.570	8.265	8.470	8.874	9.337	BETA 4
	V 3	700.97	809.12	819.97	856.01	825.34	766.11	733.12	716.77	703.02	V 3
	V 4	718.00	740.66	781.23	841.30	842.59	822.38	804.32	794.55	776.74	V 4
	VZ 3	345.08	440.56	505.99	625.96	620.88	555.36	506.80	485.86	460.98	VZ 3
	VZ 4	713.82	735.78	775.35	833.55	834.24	811.86	795.99	785.96	769.61	VZ 4
	V-THETA 3	707.28	678.63	657.80	584.33	542.40	525.48	526.96	526.84	528.73	V-THETA 3
	V-THETA 4	77.00	84.13	94.29	110.63	110.86	117.93	125.65	121.94	112.19	V-THETA 4
	M 3	0.6987	0.7210	0.7426	0.7746	0.7456	0.6864	0.6633	0.6394	0.6249	M 3
	M 4	0.6323	0.6545	0.6949	0.7585	0.7624	0.7421	0.7280	0.7133	0.6978	M 4
	TURN(PR)	57.836	50.483	45.493	35.455	33.525	35.662	37.023	38.308	40.432	TURN(PR)
	UUBAR	0.0855	0.1060	0.0847	0.0696	0.0797	0.0848	0.0877	0.1199	0.1495	UUBAR
	LOSS PARA	0.0272	0.0340	0.0276	0.0237	0.0284	0.0242	0.0339	0.0468	0.0589	LOSS PARA
	DFAC	0.3442	0.3232	0.2826	0.2083	0.1695	0.1302	0.1134	0.1212	0.1336	DFAC
	EFFP	0.5784	0.6611	0.7982	0.9594	2.5103	1.3445	1.3352	1.4564	1.5670	EFFP
	INCID	-1.008	-2.395	-3.375	-4.284	-11.515	-11.243	-11.546	-11.384	-11.485	INCID
	DEVM	11.406	12.522	12.733	12.307	11.666	12.245	12.932	12.028	10.565	DEVM
	P 3	18.350	18.858	19.351	20.223	20.069	19.330	19.017	18.868	18.714	P 3
	P 4	17.910	18.273	18.848	19.761	19.576	18.991	18.681	18.524	18.367	P 4
	T 3	579.500	578.500	578.800	578.800	567.400	567.300	568.800	568.900	568.800	T 3
	T 4	579.500	578.500	578.800	578.800	567.400	567.300	568.800	568.900	568.800	T 4

Table B-4. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 83.29 Equivalent Rotor Speed = 8276.11 Equivalent Weight Flow = 34.780 lb/sec
Uniform Inlet
U.S. Customary Units

INLET GUIDE VANE	PCT SPAN	95.79	91.71	86.89	70.41	49.21	29.10	13.80	4.00	4.70	PCT SPAN
	DIA	16.749	16.691	17.276	18.262	19.507	20.697	21.603	21.887	22.142	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	12.928	12.204	11.906	12.141	13.157	13.472	13.849	14.395	15.706	BETA 2
	V 1	365.83	364.93	367.37	373.55	374.47	364.02	335.40	324.47	313.43	V 1
	V 2	412.94	418.70	423.45	427.22	426.02	418.21	404.88	398.01	393.08	V 2
	VZ 1	365.82	364.91	367.34	373.41	374.08	363.35	334.56	323.69	312.51	VZ 1
	VZ 2	402.46	409.20	414.26	417.76	413.68	404.88	390.15	382.31	375.70	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	92.38	88.50	87.34	89.76	96.70	96.92	96.18	98.12	102.82	V-THETA 2
	M 1	0.3312	0.3304	0.3327	0.3384	0.3392	0.3298	0.3032	0.2931	0.2830	M 1
	M 2	0.3750	0.3804	0.3849	0.3884	0.3873	0.3800	0.3675	0.3611	0.3565	M 2
	TURN	-12.93	-12.20	-11.00	-12.13	-13.12	-13.40	-13.74	-14.27	-15.16	TURN
	UUBAR	0.0477	0.0287	0.0094	0.0182	0.0271	0.0382	0.0	0.0	-0.0165	UUBAR
	DFAC	-0.027	-0.049	-0.056	-0.045	-0.030	-0.035	-0.082	-0.092	-0.105	DFAC
	EFFP	0.8579	0.9205	0.9733	0.9469	0.9196	0.8970	0.9999	1.0000	1.0338	EFFP
	INCID	5.9000	5.9200	5.9700	6.2500	6.6600	7.0000	7.3200	7.4200	7.4200	INCID
	DEVM	4.072	5.097	5.776	6.671	7.121	8.209	8.958	8.777	8.116	DEVM
	P 1	14.627	14.647	14.668	14.729	14.770	14.749	14.617	14.566	14.514	P 1
	P 2	14.576	14.617	14.657	14.709	14.739	14.709	14.617	14.566	14.530	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	UUBAR FS										UUBAR FS
	P1 FS										P1 FS
	LOSS PARA FS										LOSS PARA FS

ROTOR F	PCT SPAN	95.01	89.99	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA	16.721	16.943	17.164	17.828	18.713	19.598	20.262	20.483	20.705	DIA
ROTOR -L.E.	BETA 2	10.003	9.612	9.422	9.652	10.387	10.644	10.983	11.429	12.120	BETA 2
ROTOR -T.E.	BETA 3	60.515	56.676	53.542	46.664	44.907	45.180	49.139	50.365	51.497	BETA 3
	BETA(PR) 2	44.172	44.763	45.084	46.061	47.562	49.582	51.636	52.428	53.002	BETA(PR) 2
	BETA(PR) 3	-16.425	-10.301	-5.662	4.148	11.765	17.427	21.588	23.300	24.808	BETA(PR) 3
	V 2	533.44	532.99	537.29	544.65	549.29	543.51	527.76	518.93	512.92	V 2
	V 3	833.93	833.04	831.86	828.72	789.46	761.84	722.38	709.63	700.37	V 3
	VZ 2	525.33	525.51	530.02	536.67	539.15	531.94	515.07	505.42	498.04	VZ 2
	VZ 3	409.71	456.87	494.14	568.55	560.77	536.07	471.54	451.58	434.88	VZ 3
	V-THETA 2	92.66	88.99	87.96	91.27	98.92	98.97	98.96	102.17	107.05	V-THETA 2
	V-THETA 3	724.59	694.87	668.80	602.56	558.96	539.44	545.10	545.16	546.67	V-THETA 3
	V(PR) 2	732.4	740.1	750.7	773.6	799.8	821.9	831.8	830.9	829.6	V(PR) 2
	V(PR) 3	430.1	466.9	497.1	570.4	573.8	563.7	509.4	494.1	481.7	V(PR) 3
	VTHETA PR2	-510.4	-521.2	-531.6	-556.9	-589.6	-624.6	-650.7	-656.9	-661.0	VTHETA PR2
	VTHETA PR3	120.8	83.0	49.0	-41.2	-116.8	-168.3	-186.6	-194.5	-201.0	VTHETA PR3
	U 2	603.02	610.17	619.53	648.20	688.57	724.61	750.65	759.06	768.02	U 2
	U 3	603.82	611.83	619.81	643.70	675.75	707.71	731.69	739.67	747.69	U 3
	M 2	0.4891	0.4887	0.4928	0.4999	0.5044	0.4988	0.4836	0.4752	0.4694	M 2
	M 3	0.7427	0.7429	0.7433	0.7440	0.7103	0.6803	0.6406	0.6283	0.6193	M 3
	M(PR) 2	0.6715	0.6786	0.6885	0.7100	0.7343	0.7543	0.7623	0.7608	0.7594	M(PR) 2
	M(PR) 3	0.3831	0.4164	0.4442	0.5121	0.5142	0.5034	0.4517	0.4375	0.4260	M(PR) 3
	TURN(PR)	60.480	55.007	50.738	41.901	35.755	32.041	29.980	29.064	28.142	TURN(PR)
	UUBAR	0.3460	0.2660	0.1905	0.0026	-0.0193	0.0056	0.1062	0.1233	0.1305	UUBAR

7068133

	LOSS PARA	0.1069	0.0855	0.0629	0.0009	-0.0069	0.0021	0.0397	0.0460	0.0489	LOSS PARA
	DFAC	0.6909	0.6371	0.5945	0.4907	0.4908	0.5175	0.5985	0.6179	0.6330	DFAC
	EFFP	0.7628	0.8065	0.8587	0.9965	1.0164	0.9964	0.8988	0.8850	0.8771	EFFP
	EFF	0.7522	0.7975	0.8519	0.9963	1.0172	0.9962	0.8942	0.8799	0.8716	EFF
	INCID	-11.478	-9.637	-8.917	-7.774	-6.950	-5.990	-5.204	-5.308	-6.196	INCID
	DEVM	17.592	15.856	14.344	12.145	9.545	7.869	10.186	12.277	15.063	DEVM
	P 2	14.576	14.617	14.657	14.709	14.739	14.709	14.617	14.566	14.530	P 2
	P 3	19.867	20.132	20.377	20.878	20.653	20.449	19.948	19.805	19.724	P 3
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	T 3	582.500	581.000	578.800	573.500	570.300	570.100	572.600	572.800	573.000	T 3

STATOR F	PCT SPAN	95.81	92.01	86.21	69.91	49.21	29.51	14.11	9.31	4.51	PCT SPAN
	DIA	16.659	16.803	17.023	17.641	18.426	19.173	19.757	19.939	20.121	DIA
STATOR-L.E.	BETA 3	60.720	56.137	52.565	45.315	43.492	43.817	47.749	48.984	50.124	BETA 3
STATOR-T.E.	BETA 4	10.178	9.986	9.660	9.765	8.246	9.413	10.043	10.002	9.794	BETA 4
	V 3	830.92	837.23	842.69	848.31	812.58	782.86	740.26	726.71	716.70	V 3
	V 4	572.77	589.81	617.64	671.19	657.45	634.52	611.27	606.59	601.54	V 4
	VZ 3	406.38	466.50	512.19	596.35	588.90	563.75	496.45	475.62	458.16	VZ 3
	VZ 4	563.73	580.81	608.76	662.09	649.87	624.47	599.34	594.29	589.02	VZ 4
	V-THETA 3	724.76	695.20	669.08	602.93	558.69	540.93	546.53	546.82	548.42	V-THETA 3
	V-THETA 4	101.21	102.27	103.61	108.01	94.17	103.52	106.14	104.81	101.68	V-THETA 4
	M 3	0.7397	0.7471	0.7541	0.7636	0.7302	0.7009	0.6578	0.6446	0.6349	M 3
	M 4	0.4959	0.5121	0.5387	0.5914	0.5802	0.5586	0.5359	0.5314	0.5267	M 4
	TURN(PR)	50.542	46.150	42.901	36.035	35.202	34.318	37.588	38.853	40.193	TURN(PR)
	UUBAR	0.0624	0.0672	0.0519	0.0214	0.0414	0.0929	0.0955	0.0867	0.0872	UUBAR
	LOSS PARA	0.0196	0.0214	0.0168	0.0072	0.0147	0.0346	0.0367	0.0337	0.0342	LOSS PARA
	DFAC	0.5511	0.5255	0.4884	0.4097	0.3989	0.4032	0.4106	0.4096	0.4138	DFAC
	EFFP	0.9018	0.8902	0.9086	0.9540	0.9017	0.7732	0.7437	0.7547	0.7461	EFFP
	INCID	-4.280	-3.265	-3.24-	-7.004	-9.163	-10.843	-9.913	-9.897	-10.275	INCID
	DEVM	15.428	15.985	15.458	14.010	12.335	13.390	13.999	13.150	12.032	DEVM
	P 3	19.867	20.132	20.377	20.878	20.653	20.449	19.948	19.805	19.724	P 3
	P 4	19.489	19.714	20.045	20.735	20.398	19.918	19.468	19.387	19.315	P 4
	T 3	582.500	581.000	578.800	573.500	570.300	570.100	572.600	572.800	573.000	T 3
	T 4	582.500	581.000	578.800	573.500	570.300	570.100	572.600	572.800	573.000	T 4

Table B-4. Blade Element Performance (Continued)
Stage F, Rotor F – Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 83.48 Equivalent Rotor Speed = 8294.66 Equivalent Weight Flow = 32.883 lb/sec
Uniform Inlet
U.S. Customary Units

INLET GUIDE VANE											
I.G.V.-L.E.	PCT SPAN	95.79	91.71	86.89	70.41	49.21	29.10	13.80	9.00	4.70	PCT SPAN
I.G.V.-T.E.	DIA	16.749	16.991	17.276	18.252	19.507	20.697	21.603	21.887	22.142	DIA
	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
	BETA 2	12.473	12.150	11.992	12.473	13.790	13.157	14.049	14.855	15.709	BETA 2
	V 1	343.56	345.27	346.26	350.57	352.96	344.68	322.26	311.21	300.18	V 1
	V 2	387.84	392.03	395.83	401.18	401.01	393.55	379.32	373.70	367.26	V 2
	VZ 1	343.55	345.26	346.23	350.44	352.60	344.05	321.45	310.36	299.30	VZ 1
	VZ 2	378.68	383.22	387.11	391.33	388.37	381.23	365.22	357.75	350.37	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	83.76	82.51	82.23	86.56	95.32	89.08	91.39	94.89	98.54	V-THETA 2
	M 1	0.3107	0.3123	0.3132	0.3171	0.3194	0.3117	0.2911	0.2809	0.2708	M 1
	M 2	0.3517	0.3556	0.3591	0.3641	0.3639	0.3570	0.3437	0.3381	0.3326	M 2
	TURN	-12.47	-12.15	-11.99	-12.46	-13.75	-13.08	-13.94	-14.73	-15.56	TURN
	UUBAR	0.0484	0.0531	0.0317	0.0103	0.0152	0.0265	0.0244	0.0131	0.0	UUBAR
	DFAC	-0.031	-0.039	-0.047	-0.043	-0.023	-0.031	-0.052	-0.063	-0.074	DFAC
	EFFP	0.8555	0.8506	0.9102	0.9692	0.9526	0.9228	0.9428	0.9720	0.9999	EFFP
	INCID	5.9000	5.9200	5.9700	6.2500	6.6600	7.0000	7.3200	7.4200	7.4200	INCID
	DEVM	4.527	5.151	5.690	6.339	6.489	8.528	8.756	8.321	7.716	DEVM
	P 1	14.634	14.665	14.675	14.715	14.756	14.741	14.644	14.593	14.542	P 1
	P 2	14.588	14.614	14.644	14.705	14.741	14.715	14.624	14.583	14.542	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	UUBAR FS										UUBAR FS
	P1 FS										P1 FS
	LOSS PARA FS										LOSS PARA FS

ROTOR F											
ROTOR -L.E.	PCT SPAN	95.01	89.99	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
ROTOR -T.E.	DIA	16.721	16.943	17.164	17.828	18.715	19.598	20.262	20.483	20.705	DIA
	BETA 2	9.725	9.640	9.562	9.989	10.978	10.473	11.225	11.878	12.540	BETA 2
	BETA 3	61.683	58.189	55.229	47.931	46.880	46.870	50.912	52.485	54.030	BETA 3
	BETA(PR) 2	46.708	47.260	47.590	48.338	49.691	51.914	53.945	54.640	55.340	BETA(PR) 2
	BETA(PR) 3	-15.475	-9.629	-5.164	-4.061	12.012	18.268	22.114	23.841	25.658	BETA(PR) 3
	V 2	497.28	495.43	498.48	507.68	513.15	507.59	490.74	483.06	475.78	V 2
	V 3	809.34	807.75	807.14	814.74	774.23	742.54	711.81	699.39	688.15	V 3
	VZ 2	490.23	488.44	491.43	499.75	502.72	497.06	477.55	469.73	461.26	VZ 2
	VZ 3	383.25	425.11	460.15	547.06	528.84	506.81	447.88	424.97	403.26	VZ 3
	V-THETA 2	84.01	82.97	82.60	86.02	97.51	91.69	94.98	98.80	102.59	V-THETA 2
	V-THETA 3	711.28	685.33	662.79	606.11	564.74	541.02	551.34	553.53	555.61	V-THETA 3
	V(PR) 2	716.9	719.7	728.8	741.9	777.8	807.2	814.8	813.5	813.0	V(PR) 2
	V(PR) 3	400.5	433.6	462.5	548.8	541.6	535.7	485.6	466.9	449.8	V(PR) 3
	VTHETA PR2	-520.4	-528.6	-538.1	-561.6	-592.6	-634.4	-657.4	-662.0	-667.1	VTHETA PR2
	VTHETA PR3	106.1	72.1	41.6	-39.1	-112.5	-168.5	-182.0	-187.8	-193.7	VTHETA PR3
	U 2	604.36	611.54	620.92	646.64	690.11	726.23	752.32	760.76	769.74	U 2
	U 3	605.17	613.21	621.20	647.24	677.27	709.30	733.31	741.33	748.36	U 3
	M 2	0.4646	0.4628	0.4657	0.4644	0.4696	0.4649	0.4483	0.4410	0.4341	M 2
	M 3	0.7187	0.7180	0.7187	0.7314	0.6917	0.6607	0.6289	0.6175	0.6064	M 3
	M(PR) 2	0.6534	0.6577	0.6642	0.6879	0.7119	0.7364	0.7443	0.7427	0.7418	M(PR) 2
	M(PR) 3	0.3556	0.4044	0.4118	0.4915	0.4838	0.4767	0.4285	0.4123	0.3965	M(PR) 3
	TURN(PR)	62.072	56.836	52.747	44.235	37.639	33.491	31.770	30.745	29.636	TURN(PR)
	UUBAR	0.2649	0.2870	0.2130	-0.0055	-0.0063	0.0263	0.1100	0.1295	0.1452	UUBAR

LOSS PARA	0.1133	0.0824	0.0704	-0.0019	-0.0019	0.0108	0.0409	0.0481	0.0538	LOSS PARA
DFAC	0.7227	0.6715	0.6294	0.5038	0.5212	0.5480	0.6249	0.6490	0.6714	DFAC
EFFP	0.7581	0.7982	0.8466	1.0020	1.0001	0.9727	0.9001	0.8848	0.8710	EFFP
EFF	0.7473	0.7885	0.8394	1.0021	1.0001	0.9714	0.8954	0.8795	0.8652	EFF
INCID	-8.942	-7.140	-6.411	-5.419	-6.819	-5.651	-2.890	-3.089	-3.253	INCID
DEVM	18.576	16.524	14.842	12.085	8.792	8.808	10.709	12.816	15.409	DEVM
P 2	14.588	14.614	14.644	14.705	14.741	14.715	14.624	14.583	14.542	P 2
P 3	19.128	20.062	20.296	21.029	20.682	20.469	20.143	20.011	19.899	P 3
T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
T 3	582.300	581.000	579.100	574.400	571.400	571.500	574.200	574.500	574.900	T 3

STATOR F											
STATOR-L.E.	PCT SPAN	95.81	92.01	86.21	69.91	49.21	29.51	14.11	9.31	4.51	PCT SPAN
STATOR-T.E.	DIA	16.659	16.803	17.023	17.641	18.426	19.172	19.767	19.939	20.121	DIA
	BETA 3	61.885	57.666	54.274	46.554	45.445	45.500	49.674	51.034	52.573	BETA 3
	BETA 4	12.818	12.253	11.629	10.752	10.134	10.322	10.366	10.273	10.174	BETA 4
	V 3	804.62	811.50	816.83	838.18	782.80	742.06	729.00	715.84	703.79	V 3
	V 4	570.34	574.72	578.47	594.65	554.41	525.97	516.84	506.77	498.27	V 4
	VZ 3	380.11	434.03	470.62	572.84	558.78	533.13	492.56	469.03	426.61	VZ 3
	VZ 4	407.35	422.28	446.61	564.66	550.35	527.28	502.10	485.02	436.25	VZ 4
	V-THETA 3	711.45	685.65	663.06	606.65	564.47	542.52	552.79	555.18	557.43	V-THETA 3
	V-THETA 4	115.43	114.38	112.91	113.68	105.34	104.21	100.89	98.78	96.23	V-THETA 4
	M 3	0.7160	0.7217	0.7282	0.7498	0.7099	0.6795	0.6660	0.6332	0.6215	M 3
	M 4	0.4496	0.4621	0.4844	0.5238	0.4988	0.4783	0.4693	0.4649	0.4770	M 4
	TURN(PR)	49.068	45.312	42.645	35.836	34.268	35.084	39.002	40.637	42.268	TURN(PR)
	UUBAR	0.0337	0.0433	0.0388	0.0560	0.0431	0.0492	0.0827	0.0796	0.0826	UUBAR
	LOSS PARA	0.0105	0.0137	0.0125	0.0188	0.0192	0.0257	0.0318	0.0309	0.0324	LOSS PARA
	DFAC	0.5916	0.5697	0.5386	0.4732	0.4548	0.4550	0.4730	0.4782	0.4869	DFAC
	EFFP	0.9518	0.9363	0.9264	0.9015	0.9163	0.8988	0.8232	0.8258	0.8174	EFFP
	INCID	-3.115	-1.747	-1.533	-5.755	-7.210	-9.160	-7.187	-7.843	-7.823	INCID
	DEVM	16.067	14.351	12.422	15.456	14.222	14.296	14.311	13.419	12.409	DEVM
	P 3	19.828	20.062	20.296	21.029	20.683	20.469	20.145	20.011	19.899	P 3
	P 4	19.694	19.807	20.062	20.663	20.428	20.092	19.726	19.634	19.522	P 4
	T 3	582.300	581.000	579.100	574.400	571.400	571.500	574.200	574.500	574.900	T 3
	T 4	582.300	581.000	579.100	574.400	571.400	571.500	574.200	574.500	574.900	T 4

ORIGINAL PAGE IS
OF POOR QUALITY

Table B-4. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 83.51 Equivalent Rotor Speed =8297.36 Equivalent Weight Flow = 30.748 lb/sec
Uniform Inlet
U.S. Customary Units

INLET GUIDE VANE	PCT SPAN	95.74	91.71	86.69	70.41	49.21	29.10	13.80	9.00	4.70	PCT SPAN
	DIA	16.749	16.991	17.276	18.252	19.507	20.697	21.603	21.887	22.142	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	12.516	12.054	11.605	12.136	12.984	13.309	13.758	14.737	15.884	BETA 2
	V 1	321.58	321.73	323.01	327.57	326.90	315.41	293.73	284.64	279.17	V 1
	V 2	359.88	363.67	366.35	370.24	370.55	365.51	349.45	344.51	339.56	V 2
	VZ 1	321.58	321.71	322.98	327.45	326.57	314.83	292.99	283.87	278.35	VZ 1
	VZ 2	351.31	355.62	358.78	361.60	360.07	353.85	336.67	330.44	323.65	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	77.49	75.94	73.68	77.77	83.02	83.70	82.48	86.92	92.10	V-THETA 2
	M 1	0.2905	0.2906	0.2918	0.2960	0.2953	0.2848	0.2649	0.2566	0.2516	M 1
	M 2	0.3257	0.3292	0.3317	0.3353	0.3350	0.3309	0.3161	0.3116	0.3070	M 2
	TURN	-12.56	-12.05	-11.60	-12.13	-12.95	-13.24	-13.65	-14.61	-15.74	TURN
	UUBAR	0.0488	0.0487	0.0362	0.0352	0.0235	0.0	0.0219	0.0156	0.0324	UUBAR
	DFAC	-0.021	-0.035	-0.042	-0.033	-0.027	-0.046	-0.067	-0.074	-0.066	DFAC
	EFFP	0.8429	0.8556	0.8914	0.8915	0.9265	0.9999	0.9514	0.9686	0.9384	EFFP
	INCID	5.9000	5.9200	5.9700	6.2500	6.6600	7.0000	7.3200	7.4200	7.4200	INCID
	DEVM	4.484	5.247	6.077	6.675	7.293	8.372	9.046	8.438	7.543	DEVM
	P 1	14.656	14.677	14.687	14.727	14.748	14.717	14.631	14.595	14.575	P 1
	P 2	14.616	14.636	14.656	14.697	14.727	14.717	14.616	14.585	14.554	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	UUBAR FS										UUBAR FS
	P1 FS										P1 FS
	LOSS PARA FS										LOSS PARA FS
ROTOR F	PCT SPAN	95.01	89.99	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA	16.721	16.943	17.164	17.828	18.713	19.598	20.262	20.483	20.705	DIA
ROTOR -L.E.	BETA 2	9.827	9.628	9.319	9.796	10.423	10.676	11.077	11.868	12.765	BETA 2
ROTOR -T.E.	BETA 3	61.774	58.955	56.400	49.693	47.807	48.339	53.192	55.559	58.102	BETA 3
	BETA(PR) 2	49.371	49.943	50.418	51.256	52.068	54.421	56.713	57.288	57.877	BETA(PR) 2
	BETA(PR) 3	-15.787	-10.514	-6.176	4.711	12.111	18.316	22.352	24.248	26.931	BETA(PR) 3
	V 2	458.33	456.58	458.24	465.03	470.45	467.96	448.75	442.87	436.94	V 2
	V 3	811.38	807.22	804.11	791.32	766.12	734.76	701.95	688.30	672.79	V 3
	VZ 2	451.60	450.15	452.17	458.01	461.72	457.94	437.83	430.66	423.25	VZ 2
	VZ 3	383.10	415.66	444.84	511.75	514.14	487.67	419.77	368.54	354.84	VZ 3
	V-THETA 2	78.22	76.36	74.20	79.08	84.93	86.33	85.72	90.50	95.88	V-THETA 2
	V-THETA 3	713.68	690.55	669.54	603.28	567.16	548.10	560.96	566.56	570.12	V-THETA 3
	V(PR) 2	693.5	699.5	709.6	732.0	762.0	788.2	799.2	798.4	797.6	V(PR) 2
	V(PR) 3	400.9	425.1	447.9	513.8	526.7	515.3	455.9	428.2	399.8	V(PR) 3
	VTHETA PR2	-526.4	-535.4	-546.9	-570.8	-605.4	-640.1	-666.9	-670.5	-674.1	VTHETA PR2
	VTHETA PR3	108.3	77.1	48.1	-42.2	-110.3	-161.4	-172.6	-175.0	-179.5	VTHETA PR3
	U 2	604.57	611.74	621.12	649.86	690.34	726.47	752.57	761.01	769.99	U 2
	U 3	605.37	613.41	621.41	645.45	677.49	709.52	733.57	741.57	749.61	U 3
	M 2	0.4176	0.4160	0.4175	0.4239	0.4291	0.4267	0.4086	0.4031	0.3975	M 2
	M 3	0.7202	0.7167	0.7148	0.7059	0.6826	0.6523	0.6169	0.6055	0.5907	M 3
	M(PR) 2	0.6319	0.6373	0.6466	0.6673	0.6950	0.7168	0.7277	0.7267	0.7256	M(PR) 2
	M(PR) 3	0.3558	0.3774	0.3981	0.4584	0.4693	0.4575	0.4020	0.3767	0.3510	M(PR) 3
	TURN(PR)	60.045	60.399	56.586	46.534	40.519	36.048	34.307	32.994	31.014	TURN(PR)
	UUBAR	0.3599	0.2943	0.2323	0.0589	0.0174	0.0476	0.1486	0.1798	0.2078	UUBAR
	LOSS PARA	0.1116	0.0946	0.0766	0.0203	0.0062	0.0175	0.0552	0.0666	0.0762	LOSS PARA
	DFAC	0.7175	0.6797	0.6471	0.5452	0.5380	0.5692	0.6642	0.7017	0.7387	DFAC
	EFFP	0.7792	0.8087	0.8477	0.9567	0.9842	0.9594	0.8784	0.8523	0.8293	EFFP
	EFF	0.7690	0.7996	0.8404	0.9545	0.9834	0.9574	0.8727	0.8455	0.8216	EFF
	INCID	-6.279	-4.457	-3.584	-2.579	-1.841	-1.146	-0.117	-0.435	-1.309	INCID
	DEVM	18.226	15.644	13.830	12.707	9.891	8.756	10.947	13.221	17.077	DEVM
	P 2	14.616	14.636	14.656	14.697	14.727	14.717	14.616	14.585	14.554	P 2
	P 3	20.101	20.285	20.468	20.753	20.753	20.559	20.203	20.051	19.877	P 3
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	T 3	583.000	582.100	580.500	575.000	573.000	573.000	576.300	577.100	577.500	T 3
STATOR F	PCT SPAN	95.81	92.01	86.21	69.91	49.21	29.51	14.11	9.31	4.51	PCT SPAN
	DIA	16.659	16.803	17.023	17.641	18.426	19.173	19.757	19.939	20.121	DIA
STATOR-L.E.	BETA 3	61.979	58.424	55.416	48.375	46.362	46.942	51.673	53.985	56.470	BETA 3
STATOR-T.E.	BETA 4	14.677	13.941	12.838	10.849	10.491	11.111	10.336	9.873	9.471	BETA 4
	V 3	808.65	810.96	813.65	807.79	784.03	753.56	718.52	704.09	687.60	V 3
	V 4	472.08	487.38	512.44	555.91	550.15	534.06	517.00	509.91	501.39	V 4
	VZ 3	379.90	424.63	461.80	536.42	540.56	513.57	444.61	413.09	378.99	VZ 3
	VZ 4	456.65	472.97	499.53	545.69	540.31	522.80	506.44	499.76	491.42	VZ 4
	V-THETA 3	713.85	690.88	669.82	603.65	566.89	549.61	562.43	568.26	571.94	V-THETA 3
	V-THETA 4	119.61	117.41	113.84	104.58	100.06	102.67	92.37	86.98	81.98	V-THETA 4
	M 3	0.7175	0.7204	0.7241	0.7221	0.7001	0.6704	0.6347	0.6205	0.6046	M 3
	M 4	0.4053	0.4193	0.4423	0.4839	0.4795	0.4649	0.4481	0.4414	0.4335	M 4
	TURN(PR)	47.302	44.482	42.574	37.513	35.828	35.748	41.223	43.990	46.873	TURN(PR)
	UUBAR	0.0663	0.0687	0.0565	0.0267	0.0545	0.0761	0.0700	0.0610	0.0480	UUBAR
	LOSS PARA	0.0205	0.0215	0.0181	0.0090	0.0193	0.0282	0.0269	0.0237	0.0189	LOSS PARA
	DFAC	0.6516	0.6287	0.5956	0.5245	0.5150	0.5181	0.5401	0.5500	0.5597	DFAC
	EFFP	0.9155	0.9098	0.9218	0.9579	0.9099	0.8695	0.8743	0.8883	0.9105	EFFP
	INCID	-3.021	-0.979	-0.391	-3.944	-6.293	-7.718	-5.985	-4.888	-3.916	INCID
	DEVM	19.926	19.940	18.636	15.594	14.579	15.084	14.292	13.022	11.710	DEVM
	P 3	20.101	20.285	20.468	20.753	20.753	20.559	20.203	20.051	19.877	P 3
	P 4	19.715	19.877	20.127	20.590	20.437	20.152	19.867	19.771	19.669	P 4
	T 3	583.000	582.100	580.500	575.000	573.000	573.000	576.300	577.100	577.500	T 3
	T 4	583.000	582.100	580.500	575.000	573.000	573.000	576.300	577.100	577.500	T 4

Table B-4. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 83.26 Equivalent Rotor Speed = 8272.47 Equivalent Weight Flow = 28.680 lb/sec
Uniform Inlet
U.S. Customary Units

INLET GUIDE VANE	PCT SPAN	95.79	91.71	86.89	70.41	49.21	29.10	13.80	9.00	4.70	PCT SPAN
	DIA	16.749	16.991	17.276	18.252	19.507	20.697	21.603	21.887	22.142	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	12.131	11.725	11.621	12.292	12.942	12.981	13.271	13.881	14.669	BETA 2
	V 1	295.75	294.99	296.62	301.00	304.11	294.13	279.92	272.50	266.87	V 1
	V 2	333.81	336.21	339.40	345.39	345.58	337.21	325.40	321.08	317.35	V 2
	VZ 1	295.75	294.98	296.60	300.89	303.80	293.59	279.22	271.75	266.09	VZ 1
	VZ 2	326.35	329.16	332.37	337.14	335.86	326.87	314.32	309.11	304.21	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	70.15	68.31	68.35	73.46	77.18	75.35	74.13	76.39	79.63	V-THETA 2
	M 1	0.2668	0.2661	0.2676	0.2716	0.2744	0.2653	0.2523	0.2455	0.2404	M 1
	M 2	0.3017	0.3039	0.3068	0.3124	0.3125	0.3048	0.2940	0.2900	0.2866	M 2
	TURN	-12.13	-11.72	-11.62	-12.28	-12.91	-12.91	-13.17	-13.76	-14.53	TURN
	UUBAR	0.0430	0.0432	0.0285	0.0	0.0068	0.0144	0.0399	0.0338	0.0352	UUBAR
	DFAC	-0.033	-0.046	-0.051	-0.048	-0.030	-0.037	-0.047	-0.053	-0.054	DFAC
	EFFP	0.8680	0.8773	0.9182	1.0000	0.9781	0.9574	0.9004	0.9221	0.9234	EFFP
	INCID	5.9000	5.9200	5.9700	6.2500	6.6600	7.0000	7.3200	7.4200	7.4200	INCID
	DEVM	4.869	5.576	6.062	6.520	7.334	8.698	9.531	9.287	8.748	DEVM
	P 1	14.660	14.670	14.680	14.710	14.741	14.710	14.660	14.629	14.609	P 1
	P 2	14.629	14.639	14.660	14.710	14.736	14.700	14.634	14.609	14.589	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	UUBAR FS										UUBAR FS
	P1 FS										P1 FS
	LOSS PARA FS										LOSS PARA FS

ROTOR F	PCT SPAN	95.01	89.99	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA	16.721	16.943	17.164	17.828	18.713	19.598	20.262	20.483	20.705	DIA
ROTOR -L.E.	BETA 2	9.580	9.418	9.381	9.971	10.448	10.482	10.744	11.239	11.851	BETA 2
ROTOR -T.E.	BETA 3	64.165	61.460	59.104	51.467	49.761	50.770	55.247	57.892	60.228	BETA 3
	BETA(PR) 2	51.939	52.576	52.879	53.455	54.901	56.988	58.906	59.489	60.017	BETA(PR) 2
	BETA(PR) 3	-17.656	-12.491	-8.272	3.871	12.458	19.471	22.620	23.785	25.140	BETA(PR) 3
	V 2	422.77	419.81	422.27	431.59	436.34	428.99	415.72	410.69	406.48	V 2
	V 3	793.89	792.54	791.00	780.79	766.01	709.67	691.71	684.90	679.91	V 3
	VZ 2	416.87	414.15	416.61	424.85	428.22	420.08	406.05	400.76	395.09	VZ 2
	VZ 3	345.46	378.16	406.05	486.27	481.56	448.19	393.63	363.42	337.08	VZ 3
	V-THETA 2	70.36	68.69	68.83	74.69	78.96	77.72	77.04	79.54	82.90	V-THETA 2
	V-THETA 3	713.51	695.24	678.58	610.61	569.06	548.95	567.35	579.17	589.14	V-THETA 3
	V(PR) 2	676.2	681.5	690.3	713.6	745.3	772.0	787.5	786.7	792.0	V(PR) 2
	V(PR) 3	385.0	410.7	467.7	494.0	476.9	428.3	399.1	374.4	357.4	V(PR) 3
	VTHETA PR2	-532.4	-541.2	-550.4	-573.2	-609.3	-656.6	-673.3	-679.2	-684.8	VTHETA PR2
	VTHETA PR3	110.0	83.8	59.0	-32.9	-106.4	-158.5	-164.0	-160.2	-158.2	VTHETA PR3
	U 2	602.76	606.91	619.25	647.41	688.27	724.29	750.32	758.77	767.68	U 2
	U 3	603.55	611.56	619.54	643.51	675.45	707.40	731.37	739.34	747.36	U 3
	M 2	0.3842	0.3814	0.3838	0.3925	0.3968	0.3900	0.3776	0.3729	0.3690	M 2
	M 3	0.7026	0.7019	0.7011	0.6948	0.6822	0.6276	0.6082	0.6010	0.5955	M 3
	M(PR) 2	0.6145	0.6192	0.6274	0.6490	0.6780	0.7020	0.7154	0.7171	0.7190	M(PR) 2
	M(PR) 3	0.3231	0.3449	0.3640	0.4340	0.4388	0.4217	0.3767	0.3502	0.3279	M(PR) 3
	TURN(PR)	69.471	64.998	61.141	49.573	42.409	37.468	36.239	35.682	34.868	TURN(PR)
	UUBAR	0.3656	0.2204	0.2580	0.0616	0.0379	0.0806	0.1616	0.1967	0.2209	UUBAR
	LOSS PARA	0.1183	0.1022	0.0847	0.0213	0.0136	0.0294	0.0569	0.0731	0.0822	LOSS PARA
	DFAC	0.7668	0.7265	0.6980	0.5757	0.5755	0.6147	0.7019	0.7473	0.7855	DFAC
	EFFP	0.7746	0.8084	0.8423	0.9548	0.9682	0.9342	0.8743	0.8532	0.8360	EFFP
	EFF	0.7642	0.7963	0.8346	0.9525	0.9666	0.9310	0.8683	0.8462	0.8282	EFF
	INCID	-3.711	-1.824	-1.123	-0.379	0.393	1.425	2.082	1.773	0.839	INCID
	DEVM	16.368	13.678	11.737	11.868	10.237	9.908	11.214	12.760	13.365	DEVM
	P 2	14.629	14.639	14.660	14.710	14.736	14.700	14.634	14.609	14.589	P 2
	P 3	20.148	20.366	20.564	20.909	20.747	20.473	20.381	20.341	20.321	P 3
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	T 3	583.700	582.900	581.800	576.250	573.800	574.000	578.000	579.500	581.000	T 3

STATOR F	PCT SPAN	95.81	92.01	86.21	69.91	49.21	29.51	14.11	9.31	4.51	PCT SPAN
	DIA	16.659	16.803	17.023	17.661	18.426	19.173	19.747	19.939	20.131	DIA
STATOR-L.E.	BETA 3	64.404	60.915	58.061	50.111	48.284	49.341	53.652	56.155	58.441	BETA 3
STATOR-T.E.	BETA 4	15.508	14.632	13.788	12.948	11.812	11.492	10.833	10.364	9.957	BETA 4
	V 3	791.25	796.06	800.01	796.11	762.64	726.81	707.67	700.47	695.41	V 3
	V 4	428.44	447.77	476.78	532.47	528.88	512.89	510.70	511.62	512.52	V 4
	VZ 3	341.86	366.96	423.19	510.66	507.06	472.79	418.59	388.45	362.04	VZ 3
	VZ 4	412.82	433.20	462.95	518.66	517.06	501.40	499.47	500.58	501.66	VZ 4
	V-THETA 3	713.68	695.66	678.85	610.89	568.79	550.66	568.84	580.50	591.07	V-THETA 3
	V-THETA 4	114.55	113.10	113.61	119.25	108.13	101.94	98.58	91.65	87.39	V-THETA 4
	M 3	0.7002	0.7053	0.7099	0.7102	0.6787	0.6440	0.6234	0.6157	0.6097	M 3
	M 4	0.3666	0.3839	0.4069	0.4620	0.4598	0.4455	0.4417	0.4418	0.4421	M 4
	TURN(PR)	48.896	46.283	44.269	37.151	36.432	37.768	42.710	45.717	48.347	TURN(PR)
	UUBAR	0.1100	0.1127	0.1002	0.0612	0.0571	0.0611	0.0641	0.0641	0.0630	UUBAR
	LOSS PARA	0.0339	0.0356	0.0319	0.0204	0.0201	0.0226	0.0245	0.0246	0.0247	LOSS PARA
	DFAC	0.7011	0.6752	0.6371	0.5441	0.5264	0.5304	0.5438	0.5501	0.5562	DFAC
	EFFP	0.8670	0.8582	0.8683	0.9073	0.9066	0.8951	0.8765	0.8640	0.8545	EFFP
	INCID	-0.596	1.513	2.255	-2.207	-4.371	-5.317	-4.003	-2.673	-1.946	INCID
	DEVM	20.757	20.630	19.586	17.692	15.898	15.464	14.787	13.510	12.163	DEVM
	P 3	20.148	20.366	20.564	20.909	20.747	20.473	20.381	20.341	20.321	P 3
	P 4	19.529	19.712	19.976	20.544	20.432	20.168	20.057	20.047	20.047	P 4
	T 3	583.700	582.900	581.800	576.250	573.800	574.000	578.000	579.500	581.000	T 3
	T 4	583.700	582.900	581.800	576.250	573.800	574.000	578.000	579.500	581.000	T 4

Table B-4. Blade Element Performance (Continued)
Stage F, Rotor F – Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 83.45 Equivalent Rotor Speed = 8291.66 Equivalent Weight Flow = 27.797 lb/sec
Uniform Inlet
U.S. Customary Units

INLET GUIDE VANE	PCT SPAN	95.79	91.71	86.89	70.41	49.21	29.10	13.80	9.00	4.70	PCT SPAN
	DIA	16.749	16.961	17.276	18.252	19.507	20.687	21.603	21.887	22.142	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	12.270	11.815	11.561	11.857	12.676	13.016	13.760	14.544	15.236	BETA 2
	V 1	290.00	288.34	291.00	294.81	295.35	296.67	271.58	263.75	258.00	V 1
	V 2	313.87	325.94	329.04	335.11	334.55	326.87	315.33	311.42	307.83	V 2
	VZ 1	290.00	288.33	290.97	294.70	295.05	296.15	270.90	263.03	257.74	VZ 1
	VZ 2	306.69	319.01	322.28	327.63	325.49	316.76	303.98	296.04	294.32	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	66.70	66.73	65.93	66.79	73.21	73.22	74.44	77.58	80.16	V-THETA 2
	M 1	0.2615	0.2609	0.2624	0.2659	0.2664	0.2585	0.2447	0.2376	0.2323	M 1
	M 2	0.2834	0.2945	0.2973	0.3029	0.3024	0.2953	0.2847	0.2812	0.2778	M 2
	TURN	-12.27	-11.81	-11.56	-11.85	-12.64	-12.95	-13.65	-14.42	-15.09	TURN
	UUBAR	0.1337	0.0447	0.0295	0.0	0.0	0.0151	0.0333	0.0179	0.0188	UUBAR
	DFAC	0.010	-0.033	-0.039	-0.041	-0.029	-0.031	-0.042	-0.050	-0.052	DFAC
	EFFP	0.8687	0.8811	0.9070	0.9999	1.0000	0.9832	0.9137	0.9575	0.9587	EFFP
	INCID	5.9000	5.9200	5.9700	6.2500	6.6600	7.0000	7.3200	7.4200	7.4200	INCID
	DEVM	4.731	5.466	6.121	6.855	7.600	8.663	9.046	8.630	8.185	DEVM
	P 1	14.662	14.672	14.682	14.713	14.733	14.713	14.682	14.632	14.612	P 2
	P 2	14.571	14.642	14.662	14.713	14.733	14.703	14.642	14.622	14.602	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	UUBAR FS										UUBAR FS
	P1 FS										P1 FS
	LOSS PARA FS										LOSS PARA FS
ROTOR F	PCT SPAN	95.01	88.99	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA	16.721	16.943	17.164	17.828	18.713	19.598	20.262	20.483	20.705	DIA
ROTOR -L.E.	BETA 2	9.726	9.508	9.351	9.634	10.257	10.532	11.161	11.796	12.326	BETA 2
ROTOR -T.E.	BETA 3	64.264	61.725	59.665	51.343	50.740	52.007	57.070	59.604	61.645	BETA 3
	BETA(PR) 2	54.003	53.639	53.968	54.569	56.058	58.013	59.836	60.356	60.897	BETA(PR) 2
	BETA(PR) 3	-16.753	-11.860	-7.631	4.374	12.688	19.570	23.189	24.193	25.655	BETA(PR) 3
	V 2	395.99	406.24	408.64	417.84	421.49	414.92	402.02	397.68	393.57	V 2
	V 3	786.43	785.67	783.04	778.57	739.01	705.11	664.76	680.99	677.02	V 3
	VZ 2	390.29	400.66	403.19	411.83	413.90	406.23	392.12	386.82	381.87	VZ 2
	VZ 3	340.75	371.70	397.72	456.20	467.35	433.46	371.66	344.04	321.05	VZ 3
	V-THETA 2	66.90	67.10	66.39	69.64	74.90	75.53	77.36	80.78	83.46	V-THETA 2
	V-THETA 3	707.53	691.04	674.26	607.82	571.81	554.95	573.85	586.49	594.89	V-THETA 3
	V(PR) 2	664.1	675.8	685.4	711.0	741.8	767.8	781.6	783.3	786.5	V(PR) 2
	V(PR) 3	358.3	381.9	401.7	488.0	479.8	461.5	406.1	379.0	358.1	V(PR) 3
	VTHETA PR2	-537.3	-544.2	-554.3	-579.5	-615.0	-650.4	-674.7	-679.7	-686.0	VTHETA PR2
	VTHETA PR3	102.6	78.1	53.3	-37.2	-105.2	-154.1	-159.2	-154.6	-154.2	VTHETA PR3
	U 2	604.16	611.32	620.69	649.42	689.86	725.97	752.06	760.49	769.46	U 2
	U 3	604.95	612.98	620.98	645.00	677.02	709.04	733.06	741.06	749.09	U 3
	M 2	0.3592	0.3688	0.3710	0.3787	0.3830	0.3769	0.3648	0.3608	0.3570	M 2
	M 3	0.6955	0.6942	0.6933	0.6924	0.6553	0.6227	0.6012	0.5968	0.5923	M 3
	M(PR) 2	0.6024	0.6135	0.6223	0.6460	0.6741	0.6974	0.7093	0.7107	0.7133	M(PR) 2
	M(PR) 3	0.3169	0.3379	0.3557	0.4340	0.4255	0.4075	0.3566	0.3322	0.3132	M(PR) 3
	TURN(PR)	70.638	65.433	61.590	50.214	43.335	38.396	36.603	36.126	35.217	TURN(PR)
	UUBAR	0.3850	0.3273	0.2683	0.0610	0.0666	0.1047	0.1874	0.2158	0.2346	UUBAR
	LOSS PARA	0.1187	0.1047	0.0882	0.0211	0.0238	0.0381	0.0692	0.0800	0.0870	LOSS PARA
	DFAC	0.7714	0.7371	0.7081	0.5748	0.5959	0.6368	0.7312	0.7740	0.8073	DFAC
	EFFP	0.7835	0.8066	0.8374	0.9557	0.9475	0.9185	0.8572	0.8423	0.8293	EFFP
	EFF	0.7734	0.7974	0.8295	0.9535	0.9449	0.9146	0.8504	0.8347	0.8210	EFF
	INCID	-1.647	-0.761	-0.033	0.768	1.551	2.452	3.014	2.642	1.722	INCID
	DEVM	17.266	14.306	12.377	12.371	10.466	10.007	11.781	13.166	15.905	DEVM
	P 2	14.571	14.642	14.662	14.713	14.733	14.703	14.642	14.622	14.602	P 2
	P 3	20.123	20.345	20.527	20.962	20.699	20.477	20.355	20.365	20.375	P 3
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	T 3	583.500	582.800	581.800	576.600	574.700	575.000	578.900	580.400	581.800	T 3
STATOR F	PCT SPAN	95.81	92.01	86.21	69.91	49.21	29.51	14.11	9.31	4.51	PCT SPAN
	DIA	16.659	16.803	17.023	17.641	18.426	19.173	19.757	19.939	20.121	DIA
STATOR-L.E.	BETA 3	64.518	61.184	58.431	50.003	49.250	50.533	55.392	57.811	59.770	BETA 3
STATOR-T.E.	BETA 4	12.602	12.399	12.098	11.688	11.581	11.419	10.372	9.676	8.855	BETA 4
	V 3	782.96	787.09	791.76	794.13	755.05	721.96	700.33	696.34	691.97	V 3
	V 4	403.50	423.22	453.92	513.17	514.27	503.64	496.98	500.58	504.28	V 4
	VZ 3	337.27	380.33	414.48	510.29	492.46	458.19	397.03	370.29	347.76	VZ 3
	VZ 4	393.76	413.30	443.75	502.27	503.20	492.49	486.78	490.90	495.10	VZ 4
	V-THETA 3	707.70	691.36	674.54	608.19	571.53	556.48	575.35	588.25	596.79	V-THETA 3
	V-THETA 4	88.03	90.86	95.11	103.91	103.12	99.48	89.10	83.70	77.13	V-THETA 4
	M 3	0.6931	0.6986	0.7018	0.7076	0.6708	0.6387	0.6159	0.6113	0.6064	M 3
	M 4	0.3448	0.3623	0.3897	0.4445	0.4462	0.4365	0.4290	0.4317	0.4345	M 4
	TURN(PR)	51.916	48.784	46.329	38.301	37.628	39.034	44.912	48.021	50.795	TURN(PR)
	UUBAR	0.1299	0.1358	0.1195	0.0917	0.0619	0.0617	0.0726	0.0713	0.0677	UUBAR
	LOSS PARA	0.0405	0.0429	0.0383	0.0307	0.0218	0.0228	0.0279	0.0277	0.0267	LOSS PARA
	DFAC	0.7385	0.7108	0.6680	0.5724	0.5447	0.5445	0.5659	0.5717	0.5756	DFAC
	EFFP	0.8479	0.8363	0.8480	0.8670	0.9015	0.8961	0.8723	0.8710	0.8736	EFFP
	INCID	-0.482	1.782	2.624	-2.316	-3.404	-4.125	-2.260	-1.053	-0.607	INCID
	DEVM	17.852	18.398	17.895	16.432	15.668	15.292	14.328	12.826	11.098	DEVM
	P 3	20.123	20.345	20.527	20.962	20.699	20.477	20.355	20.365	20.375	P 3
	P 4	19.405	19.577	19.839	20.416	20.365	20.173	20.021	20.042	20.072	P 4
	T 3	583.500	582.800	581.800	576.600	574.700	575.000	578.900	580.400	581.800	T 3
	T 4	583.500	582.800	581.800	576.600	574.700	575.000	578.900	580.400	581.800	T 4

Table B-4. Blade Element Performance (Continued)
Stage F, Rotor F – Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 67.88 Equivalent Rotor Speed = 6744.53 Equivalent Weight Flow = 32.219 lb/sec
Uniform Inlet
U.S. Customary Units

INLET GUIDE VANE											
I.G.V.-L.E.	PCT SPAN	95.79	91.71	86.89	70.41	49.21	29.10	13.80	9.00	4.70	PCT SPAN
I.G.V.-T.E.	DIA	16.749	16.991	17.276	18.252	19.507	20.697	21.603	21.887	22.142	DIA
	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
	BETA 2	12.217	11.941	11.782	12.238	12.970	13.445	13.812	14.366	14.926	BETA 2
	V 1	337.92	337.75	338.77	342.07	343.69	336.70	314.18	302.61	293.94	V 1
	V 2	379.47	385.54	388.24	390.20	391.00	383.12	371.28	363.80	357.70	V 2
	VZ 1	337.92	337.73	338.74	341.95	343.34	336.08	313.39	301.79	293.07	VZ 1
	VZ 2	370.86	377.16	379.98	380.96	379.97	370.68	357.83	349.50	342.49	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	80.30	79.76	79.26	82.63	87.51	88.62	87.97	89.52	91.29	V-THETA 2
	M 1	0.3055	0.3053	0.3063	0.3093	0.3108	0.3044	0.2837	0.2731	0.2651	M 1
	M 2	0.3439	0.3495	0.3520	0.3539	0.3546	0.3473	0.3363	0.3294	0.3237	M 2
	TURN	-12.22	-11.94	-11.78	-12.23	-12.93	-13.37	-13.71	-14.24	-14.79	TURN
	UUBAR	0.0445	0.0222	0.0110	0.0216	0.0214	0.0556	0.0384	0.0415	0.0514	UUBAR
	DFAC	-0.027	-0.046	-0.051	-0.042	-0.031	-0.026	-0.060	-0.071	-0.076	DFAC
	EFFP	0.8595	0.9342	0.9673	0.9357	0.9351	0.8468	0.9146	0.9174	0.9064	EFFP
	INCID	5.9000	5.9200	5.9700	6.2500	6.6600	7.0000	7.3200	7.4200	7.4200	INCID
	DEVM	.4.783	5.361	5.901	6.574	7.307	8.236	8.994	8.805	8.493	DEVM
	P 1	14.635	14.655	14.665	14.706	14.747	14.747	14.655	14.604	14.569	P 1
	P 2	14.594	14.635	14.655	14.686	14.727	14.696	14.625	14.574	14.533	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	UUBAR FS										UUBAR FS
	P1 FS										P1 FS
	LOSS PARA FS										LOSS PARA FS

ROTOR F											
ROTOR -L.E.	PCT SPAN	95.01	89.99	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
ROTOR -T.E.	DIA	16.721	16.943	17.164	17.828	18.713	19.508	20.262	20.483	20.705	DIA
	BETA 2	9.548	9.491	9.414	9.831	10.358	10.737	11.061	11.518	11.949	BETA 2
	BETA 3	56.991	52.951	49.498	40.731	39.644	39.654	41.856	43.335	44.947	BETA 3
	BETA(PR) 2	40.634	41.000	41.444	42.493	43.916	45.996	48.048	48.955	49.766	BETA(PR) 2
	BETA(PR) 3	-13.124	-8.774	-5.334	4.698	11.460	16.025	20.273	22.339	24.881	BETA(PR) 3
	V 2	485.54	486.42	487.99	492.37	498.95	492.69	479.34	469.80	462.25	V 2
	V 3	693.09	708.58	722.17	734.20	694.67	672.58	634.59	613.79	590.87	V 3
	VZ 2	478.81	479.76	481.39	484.80	489.80	482.05	467.70	457.42	449.14	VZ 2
	VZ 3	376.73	426.03	468.82	556.21	533.90	516.76	471.29	446.05	416.79	VZ 3
	V-THETA 2	80.54	80.20	79.81	84.02	89.53	91.40	91.42	93.21	95.05	V-THETA 2
	V-THETA 3	579.91	564.36	548.80	478.04	442.38	428.32	422.20	419.40	416.02	V-THETA 3
	V(PR) 2	630.9	635.7	642.2	657.8	680.7	695.3	701.5	698.6	697.4	V(PR) 2
	V(PR) 3	389.6	433.5	471.4	558.5	545.7	538.4	504.7	483.6	462.0	V(PR) 3
	VTHETA PR2	-410.9	-417.1	-425.1	-444.2	-471.6	-498.1	-520.3	-526.4	-530.8	VTHETA PR2
	VTHETA PR3	87.8	65.8	43.8	-45.7	-108.3	-148.4	-174.1	-182.9	-193.3	VTHETA PR3
	U 2	481.43	497.25	504.88	528.24	561.14	590.51	611.73	618.59	625.89	U 2
	U 3	492.07	498.61	505.11	524.65	550.70	576.74	596.28	602.76	609.22	U 3
	M 2	0.4434	0.4442	0.4457	0.4499	0.4561	0.4602	0.4375	0.4284	0.4213	M 2
	M 3	0.6202	0.6354	0.6492	0.6843	0.6264	0.6057	0.5689	0.5461	0.5276	M 3
	M(PR) 2	0.5761	0.5865	0.5865	0.4010	0.6223	0.6353	0.6403	0.6371	0.6357	M(PR) 2
	M(PR) 3	0.3486	0.3887	0.4237	0.5053	0.4925	0.4857	0.4525	0.4326	0.4125	M(PR) 3
	TURN(PR)	53.683	49.725	46.772	37.793	32.405	29.900	27.700	26.547	24.828	TURN(PR)
	UUBAR	0.4237	0.3158	0.2095	-0.0639	-0.0280	-0.0160	0.0665	0.1050	0.1444	UUBAR

	LOSS PARA	0.1329	0.1000	0.0692	-0.0221	-0.0101	-0.0059	0.0251	0.0366	0.0539	LOSS PARA
	DFAC	0.6376	0.5674	0.4983	0.4661	0.4083	0.4661	0.4939	0.5229	DFAC
	EFFP	0.8620	0.7365	0.8211	1.0577	1.0271	1.0193	0.9233	0.8749	0.8323	EFFP
	EFF	0.6535	0.7312	0.8156	1.0497	1.0280	1.0196	0.9212	0.8716	0.8281	EFF
	INCID	-15.016	-13.410	-12.557	-11.342	-10.566	-9.578	-8.765	-8.782	-8.437	INCID
	DEVM	20.871	17.375	14.471	12.466	9.250	6.472	8.878	11.221	13.135	DEVM
	P 2	14.594	14.635	14.655	14.686	14.727	14.696	14.625	14.574	14.533	P 2
	P 3	17.411	17.778	18.115	18.446	18.299	18.207	17.808	17.574	17.329	P 3
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	T 3	559.750	559.250	558.400	553.250	551.000	550.800	551.300	551.400	551.000	T 3

STATOR F											
STATOR-L.E.	PCT SPAN	95.81	92.01	86.21	69.61	49.21	29.51	14.11	9.31	4.51	PCT SPAN
STATOR-T.E.	DIA	16.659	16.803	17.023	17.641	18.426	19.173	19.757	19.936	20.121	DIA
	BETA 3	57.047	52.551	48.847	39.863	38.689	38.729	40.030	42.424	44.043	BETA 3
	BETA 4	9.207	9.217	9.137	8.586	8.126	8.016	9.442	9.345	9.178	BETA 4
	V 3	691.26	711.24	729.35	747.99	705.18	688.10	648.24	626.47	602.53	V 3
	V 4	549.93	573.48	611.96	656.58	638.04	612.54	601.68	588.72	569.84	V 4
	VZ 3	376.01	432.46	479.91	573.82	552.12	535.55	488.16	460.84	431.62	VZ 3
	VZ 4	542.82	566.01	604.10	648.80	630.87	603.67	590.99	577.80	558.97	VZ 4
	V-THETA 3	580.05	564.63	549.11	479.24	442.16	429.50	423.31	421.18	417.35	V-THETA 3
	V-THETA 4	87.99	91.85	97.16	97.91	90.07	94.71	98.28	95.10	90.31	V-THETA 4
	M 3	0.6184	0.6380	0.6562	0.6778	0.6402	0.6207	0.5820	0.5611	0.5386	M 3
	M 4	0.4852	0.5073	0.5427	0.5886	0.5724	0.5482	0.5376	0.5254	0.5078	M 4
	TURN(PR)	47.840	43.332	39.705	31.264	30.520	29.728	31.368	32.947	34.722	TURN(PR)
	UUBAR	0.0412	0.0623	0.0404	0.0434	0.0532	0.1446	0.1202	0.1117	0.1151	UUBAR
	LOSS PARA	0.0130	0.0100	0.0131	0.0147	0.0190	0.0539	0.0463	0.0435	0.0453	LOSS PARA
	DFAC	0.4325	0.4096	0.3853	0.2882	0.2801	0.2961	0.2713	0.2696	0.2749	DFAC
	EFFP	0.9028	0.8470	0.8643	0.8422	0.7592	0.3944	0.2366	0.1537	0.0255	EFFP
	INCID	-7.954	-6.852	-6.060	-12.456	-13.964	-15.926	-16.731	-16.457	-16.359	INCID
	DEVM	14.457	15.216	14.935	13.330	12.216	12.894	13.401	12.496	11.419	DEVM
	P 3	17.411	17.778	18.115	18.446	18.299	18.207	17.809	17.574	17.329	P 3
	P 4	17.247	17.513	17.931	18.431	18.064	17.605	17.370	17.196	16.972	P 4
	T 3	559.750	559.250	558.400	553.250	551.000	550.800	551.300	551.400	551.000	T 3
	T 4	559.750	559.250	558.400	553.250	551.000	550.800	551.300	551.400	551.000	T 4

ORIGINAL PAGE IS
OF POOR QUALITY

Table B-4. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 67.97 Equivalent Rotor Speed =6753.79 Equivalent Weight Flow = 29.621 lb/sec
Uniform Inlet
U.S. Customary Units

INLET GUIDE VANE	PCT SPAN	95.79	91.71	86.89	70.41	49.21	29.10	13.80	9.00	4.70	PCT SPAN
	DIA	16.749	16.991	17.276	18.252	19.507	20.697	21.603	21.887	22.142	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	12.344	12.022	11.875	12.160	13.048	13.347	14.222	14.631	15.339	BETA 2
	V 1	309.05	309.67	310.83	315.45	316.44	306.64	289.09	279.04	268.41	V 1
	V 2	345.62	347.69	350.79	356.39	356.25	347.82	330.00	320.13	326.64	V 2
	VZ 1	309.04	309.65	310.80	315.33	316.11	306.12	288.36	278.26	268.12	VZ 1
	VZ 2	337.62	340.03	343.21	348.05	346.09	336.66	323.26	310.49	312.15	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	73.85	72.41	72.17	75.00	80.20	79.67	81.93	83.80	85.62	V-THETA 2
	M 1	0.2790	0.2795	0.2806	0.2846	0.2857	0.2768	0.2607	0.2515	0.2423	M 1
	M 2	0.3126	0.3145	0.3174	0.3225	0.3224	0.3146	0.3037	0.2963	0.2951	M 2
	TURN	-12.34	-12.02	-11.87	-12.15	-13.01	-13.26	-14.11	-14.71	-15.26	TURN
	UUBAR	0.0264	0.0394	0.0261	0.0126	0.0188	0.0400	0.0526	0.0485	0.0174	UUBAR
	DFAC	-0.022	-0.026	-0.034	-0.032	-0.020	-0.023	-0.039	-0.049	-0.070	DFAC
	EFFP	0.9075	0.8725	0.9156	0.9579	0.9367	0.8809	0.8730	0.8946	0.9656	EFFP
	INCID	5.9000	5.9000	5.9700	6.2500	6.0600	7.0000	7.5200	7.4200	7.4200	INCID
	DEVM	4.656	5.279	5.808	6.652	7.229	8.334	8.567	8.344	8.063	DEVM
	P 1	14.643	14.663	14.673	14.714	14.744	14.724	14.663	14.622	14.581	P 1
	P 2	14.622	14.632	14.653	14.704	14.729	14.693	14.627	14.592	14.571	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	UUBAR FS										UUBAR FS
	P1 FS										P1 FS
	LOSS PARA FS										LOSS PARA FS

ROTOR F	PCT SPAN	95.01	89.99	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA	16.721	16.943	17.164	17.828	18.713	19.598	20.262	20.483	20.705	DIA
ROTOR -L.E.	BETA 2	9.723	9.634	9.564	9.843	10.508	10.751	11.483	11.981	12.365	BETA 2
ROTOR -T.E.	BETA 3	61.984	56.565	52.141	44.672	43.410	43.133	46.705	47.843	49.675	BETA 3
	BETA(PR) 2	44.024	44.743	45.106	45.847	47.329	49.550	51.527	52.308	52.897	BETA(PR) 2
	BETA(PR) 3	-18.594	-10.875	-5.325	4.667	11.903	17.409	21.252	23.051	25.323	BETA(PR) 3
	V 2	438.79	439.09	437.39	446.31	450.83	443.50	430.19	423.03	419.15	V 2
	V 3	681.24	686.41	690.96	690.53	656.83	634.09	604.05	589.37	572.00	V 3
	VZ 2	432.48	426.95	431.29	439.52	442.35	433.90	419.13	411.20	406.63	VZ 2
	VZ 3	319.67	377.56	403.89	440.89	476.72	461.87	417.00	394.51	369.50	VZ 3
	V-THETA 2	74.10	72.81	72.67	76.26	82.05	82.39	85.14	87.26	89.14	V-THETA 2
	V-THETA 3	600.29	571.83	545.32	485.30	450.97	432.71	434.92	435.74	435.31	V-THETA 3
	V(PR) 2	601.9	603.9	611.1	631.1	633.3	670.0	675.3	674.2	675.8	V(PR) 2
	V(PR) 3	339.6	386.6	426.2	492.9	488.0	485.6	449.5	430.9	411.0	V(PR) 3
	VTHETA PR2	-418.0	-425.1	-432.9	-462.7	-479.9	-508.9	-527.4	-532.2	-537.6	VTHETA PR2
	VTHETA PR3	107.5	72.5	39.5	-40.1	-100.5	-144.8	-162.2	-167.9	-174.8	VTHETA PR3
	U 2	492.10	497.94	505.57	528.97	561.91	591.32	612.57	619.44	626.75	U 2
	U 3	492.75	499.29	505.81	525.37	551.45	577.53	597.10	603.61	610.16	U 3
	M 2	0.3992	0.3958	0.3979	0.4063	0.4106	0.4037	0.3912	0.3845	0.3808	M 2
	M 3	0.6073	0.6131	0.6187	0.6208	0.5895	0.5680	0.5384	0.5250	0.5092	M 3
	M(PR) 2	0.5472	0.5493	0.5559	0.5746	0.5949	0.6098	0.6140	0.6127	0.6141	M(PR) 2
	M(PR) 3	0.3027	0.3453	0.3616	0.4431	0.4380	0.4350	0.4010	0.3838	0.3655	M(PR) 3
	TURN(PR)	62.488	55.559	50.425	41.169	35.385	32.076	30.207	29.195	27.524	TURN(PR)
	UUBAR	0.3934	0.2782	0.1700	-0.0264	-0.0221	-0.0161	0.0573	0.0878	0.1241	UUBAR

	LOSS PARA	0.1201	0.0893	0.0561	-0.0091	-0.0079	-0.0059	0.0214	0.0328	0.0461	LOSS PARA
	DFAC	0.7174	0.6304	0.5592	0.4427	0.4574	0.4740	0.5385	0.5669	0.5982	DFAC
	EFFP	0.7254	0.7896	0.8668	1.0205	1.0190	1.0191	0.9419	0.9138	0.8774	EFFP
	EFF	0.7173	0.7831	0.8625	1.0212	1.0196	1.019[illegible]	0.9401	0.9113	0.8738	EFF
	INCID	-11.626	-9.657	-8.895	-7.988	-7.182	-6.02	-5.312	-5.476	-6.301	INCID
	DEVM	15.436	15.285	14.680	12.663	9.683	7.8[illegible]	9.851	12.029	15.575	DEVM
	P 2	14.622	14.632	14.653	14.704	14.729	14.[illegible]3	14.627	14.592	14.571	P 2
	P 3	17.939	18.163	18.367	18.662	18.448	18.357	18.092	17.950	17.787	P 3
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	T 3	562.200	560.900	558.800	554.500	552.500	552.100	553.250	553.400	553.500	T 3

STATOR F	PCT SPAN	95.81	92.01	86.21	69.91	49.21	29.51	14.11	9.31	4.51	PCT SPAN
	DIA	16.659	16.803	17.023	17.641	18.426	19.173	19.757	19.939	20.121	DIA
STATOR-L.E.	BETA 3	62.088	56.150	51.474	43.780	42.396	42.164	45.196	46.822	48.644	BETA 3
STATOR-T.E.	BETA 4	11.426	10.403	9.141	7.681	7.460	8.838	9.376	9.053	8.370	BETA 4
	V 3	679.49	688.88	697.40	702.09	669.22	647.77	616.33	601.10	583.60	V 3
	V 4	505.97	522.19	549.00	587.74	575.05	558.29	540.39	532.46	524.15	V 4
	VZ 3	318.08	383.71	434.34	506.73	493.70	479.13	433.09	410.09	384.41	VZ 3
	VZ 4	495.92	513.55	541.92	582.16	569.50	550.32	530.[illegible]9	523.10	515.26	VZ 4
	V-THETA 3	603.44	572.10	545.54	485.60	450.75	433.50	436.06	437.04	436.70	V-THETA 3
	V-THETA 4	100.21	94.28	87.19	78.51	74.57	85.57	87.66	83.34	75.81	V-THETA 4
	M 3	0.6057	0.6154	0.6249	0.6320	0.6014	0.5811	0.5505	0.5360	0.5195	M 3
	M 4	0.4438	0.4592	0.4848	0.5229	0.5120	0.4965	0.4793	0.4719	0.4642	M 4
	TURN(PR)	50.664	45.746	42.329	36.084	34.891	33.239	35.697	37.638	40.126	TURN(PR)
	UUBAR	0.0465	0.0571	0.0407	0.0185	0.0305	0.0895	0.1073	0.1005	0.0851	UUBAR
	LOSS PARA	0.0146	0.0182	0.0132	0.0063	0.0109	0.0334	0.0414	0.0392	0.0336	LOSS PARA
	DFAC	0.4911	0.4673	0.4296	0.3625	0.3452	0.3439	0.3479	0.3506	0.3528	DFAC
	EFFP	0.9088	0.8832	0.9076	0.9471	0.8988	0.6936	0.5860	0.5813	0.6036	EFFP
	INCID	-2.913	-3.252	-4.333	-8.539	-10.259	-12.495	-12.467	-12.059	-11.757	INCID
	DEVM	16.674	16.402	14.939	12.427	11.551	12.816	13.336	12.205	10.616	DEVM
	P 3	17.939	18.163	18.367	18.662	18.448	18.357	18.092	17.950	17.787	P 3
	P 4	17.756	17.929	18.194	18.580	18.326	18.021	17.731	17.629	17.532	P 4
	T 3	562.200	560.900	558.800	554.500	552.500	552.100	553.250	553.400	553.500	T 3
	T 4	562.200	560.900	558.800	554.500	552.500	552.100	553.250	553.400	553.500	T 4

Table B-4. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 68.06 Equivalent Rotor Speed =6762.80 Equivalent Weight Flow = 27.462 lb/sec
Uniform Inlet
U.S. Customary Units

INLET GUIDE VANE	PCT SPAN	95.79	91.71	86.89	70.41	49.21	29.10	13.80	9.00	4.70	PCT SPAN
	DIA	16.749	16.991	17.276	18.252	19.507	20.697	21.603	21.887	22.142	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	12.618	12.061	11.719	12.110	12.887	13.307	13.736	14.195	15.124	BETA 2
	V 1	284.89	286.27	287.72	291.61	291.97	284.91	267.55	259.37	251.22	V 1
	V 2	318.70	322.71	324.25	329.06	328.77	325.56	312.46	307.15	303.44	V 2
	VZ 1	284.89	286.26	287.69	291.50	291.66	284.39	266.88	258.66	250.48	VZ 1
	VZ 2	311.00	315.55	317.43	321.42	319.59	315.17	301.24	295.29	290.27	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	69.62	67.42	65.85	68.97	73.12	74.54	73.64	74.70	78.45	V-THETA 2
	M 1	0.2569	0.2581	0.2594	0.2630	0.2633	0.2569	0.2410	0.2336	0.2262	M 1
	M 2	0.2878	0.2915	0.2929	0.2973	0.2971	0.2941	0.2821	0.2772	0.2728	M 2
	TURN	-12.62	-12.06	-11.72	-12.10	-12.85	-13.24	-13.63	-14.08	-14.98	TURN
	UUBAR	0.0308	0.0305	0.0301	0.0146	0.0146	0.0	0.0174	0.0186	0.0	UUBAR
	DFAC	-0.020	-0.032	-0.034	-0.032	-0.024	-0.031	-0.048	-0.056	-0.066	DFAC
	EFFP	0.8935	0.9015	0.9023	0.9505	0.9500	0.9998	0.9554	0.9570	0.9999	EFFP
	INCID	5.9000	5.9200	5.9700	6.2500	6.6600	7.0000	7.3200	7.4200	7.4200	INCID
	DEVM	4.382	5.240	5.963	6.702	7.389	8.374	9.069	8.975	8.297	DEVM
	P 1	14.652	14.672	14.682	14.713	14.733	14.723	14.662	14.632	14.601	P 1
	P 2	14.632	14.652	14.662	14.703	14.723	14.723	14.652	14.622	14.601	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	UUBAR FS										UUBAR FS
	P1 FS										P1 FS
	LOSS PARA FS										LOSS PARA FS

ROTOR F	PCT SPAN	95.01	89.99	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA	16.721	16.943	17.164	17.828	18.713	19.598	20.262	20.483	20.705	DIA
	BETA 2	9.992	9.711	9.487	9.855	10.438	10.769	11.147	11.523	12.248	BETA 2
ROTOR -L.E.	BETA 3	60.861	56.627	53.286	46.424	45.092	45.585	48.915	50.157	51.634	BETA 3
ROTOR -T.E.	BETA(PR) 2	46.859	47.397	47.951	48.702	50.229	51.882	54.119	54.884	55.427	BETA(PR) 2
	BETA(PR) 3	-14.612	-8.337	-4.009	5.148	12.342	17.797	21.823	23.765	25.756	BETA(PR) 3
	V 2	402.44	401.95	402.33	409.96	413.75	413.22	398.14	391.82	387.63	V 2
	V 3	662.15	663.79	666.90	669.05	640.62	616.97	589.29	577.09	565.33	V 3
	VZ 2	396.34	396.19	396.81	403.70	406.06	404.26	388.36	381.49	376.22	VZ 2
	VZ 3	321.84	364.52	398.53	461.03	451.87	431.05	386.39	368.84	349.99	VZ 3
	V-THETA 2	69.83	67.80	66.31	70.13	74.80	76.89	76.53	77.78	81.67	V-THETA 2
	V-THETA 3	577.31	553.38	534.41	484.54	453.32	439.94	443.17	442.01	442.11	V-THETA 3
	V(PR) 2	579.6	585.3	592.5	611.8	635.3	656.0	664.0	664.7	664.5	V(PR) 2
	V(PR) 3	335.0	370.5	399.9	463.2	463.3	454.2	418.1	405.0	390.7	V(PR) 3
	VTHETA PR2	-422.9	-430.8	-439.9	-459.5	-487.9	-515.2	-536.9	-542.5	-545.9	VTHETA PR2
	VTHETA PR3	83.9	53.4	27.9	-41.5	-98.9	-138.4	-154.7	-162.4	-168.9	VTHETA PR3
	U 2	492.76	498.60	506.24	529.67	562.66	592.11	613.39	620.26	627.58	U 2
	U 3	493.41	499.96	506.48	526.07	552.19	578.30	597.90	604.42	610.97	U 3
	M 2	0.3652	0.3648	0.3651	0.3722	0.3758	0.3753	0.3612	0.3554	0.3515	M 2
	M 3	0.5900	0.5921	0.5958	0.5998	0.5734	0.5510	0.5240	0.5125	0.5016	M 3
	M(PR) 2	0.5260	0.5312	0.5377	0.5555	0.5770	0.5958	0.6024	0.6028	0.6025	M(PR) 2
	M(PR) 3	0.2985	0.3304	0.3573	0.4152	0.4147	0.4056	0.3718	0.3597	0.3466	M(PR) 3
	TURN(PR)	61.366	55.688	51.954	43.542	37.847	34.023	32.233	31.065	29.628	TURN(PR)
	UUBAR	0.3568	0.2665	0.1820	-0.0073	-0.0145	0.0151	0.0909	0.1118	0.1290	UUBAR

	LOSS PARA	0.1112	0.0861	0.0602	-0.0025	-0.0052	0.0056	0.0339	0.0416	0.0478	LOSS PARA
	DFAC	0.7043	0.6386	0.5871	0.4766	0.4864	0.5182	0.5881	0.6092	0.6308	DFAC
	EFFP	0.7623	0.8059	0.8661	1.0016	1.0090	0.9848	0.9096	0.8913	0.8748	EFFP
	EFF	0.7552	0.7999	0.8618	1.0017	1.0093	0.9843	0.9068	0.8880	0.8710	EFF
	INCID	-8.791	-7.003	-6.050	-5.133	-4.282	-3.688	-2.717	-2.844	-3.766	INCID
	DEVM	19.393	17.809	15.995	13.145	10.121	8.238	10.420	12.741	16.007	DEVM
	P 2	14.632	14.652	14.662	14.703	14.723	14.723	14.652	14.622	14.601	P 2
	P 3	18.001	18.163	18.335	18.649	18.517	18.416	18.193	18.087	17.991	P 3
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	T 3	560.600	559.750	558.400	555.100	553.500	553.500	555.200	555.300	555.300	T 3

STATOR F	PCT SPAN	95.81	92.01	86.21	69.91	49.21	29.51	14.11	9.31	4.51	PCT SPAN
	DIA	16.659	16.803	17.023	17.641	18.426	19.173	19.757	19.939	20.121	DIA
	BETA 3	60.958	56.224	52.623	45.517	44.040	44.572	47.835	49.074	50.538	BETA 3
STATOR-L.E.	BETA 4	12.920	12.283	11.217	9.539	8.849	10.082	10.423	10.357	10.225	BETA 4
STATOR-T.E.	V 3	660.50	666.08	672.84	679.78	652.44	629.82	601.01	588.36	576.13	V 3
	V 4	449.70	462.50	483.63	525.48	515.84	504.06	487.02	477.98	468.04	V 4
	VZ 3	320.64	370.30	408.41	476.16	468.54	447.79	402.41	384.38	365.12	VZ 3
	VZ 4	438.29	451.86	474.29	517.94	509.08	495.08	476.94	467.77	457.70	VZ 4
	V-THETA 3	577.45	553.64	534.63	484.84	453.10	441.15	444.33	443.33	443.52	V-THETA 3
	V-THETA 4	100.54	98.38	94.05	87.03	79.25	88.03	87.73	85.49	82.56	V-THETA 4
	M 3	0.5884	0.5942	0.6015	0.6101	0.5847	0.5632	0.5350	0.5231	0.5116	M 3
	M 4	0.3934	0.4053	0.4250	0.4647	0.4565	0.4457	0.4293	0.4210	0.4120	M 4
	TURN(PR)	48.039	43.939	41.402	35.964	35.147	34.406	37.294	38.590	40.180	TURN(PR)
	UUBAR	0.0323	0.0420	0.0382	0.0195	0.0331	0.0653	0.0801	0.0822	0.0877	UUBAR
	LOSS PARA	0.0101	0.0132	0.0123	0.0066	0.0118	0.0242	0.0308	0.0319	0.0344	LOSS PARA
	DFAC	0.5505	0.5277	0.4972	0.4285	0.4179	0.4142	0.4254	0.4320	0.4420	DFAC
	EFFP	0.9470	0.9288	0.9309	0.9579	0.9226	0.8388	0.7903	0.7817	0.7661	EFFP
	INCID	-4.042	-3.179	-3.184	-6.802	-8.615	-10.087	-9.827	-9.808	-9.861	INCID
	DEVM	18.169	18.282	17.014	14.284	12.938	14.057	14.378	13.503	12.459	DEVM
	P 3	18.001	18.163	18.335	18.649	18.517	18.416	18.193	18.087	17.991	P 3
	P 4	17.880	18.001	18.183	18.568	18.391	18.183	17.935	17.834	17.733	P 4
	T 3	560.600	559.750	558.400	555.100	553.500	553.500	555.200	555.300	555.300	T 3
	T 4	560.600	559.750	558.400	555.100	553.500	553.500	555.200	555.300	555.300	T 4

ORIGINAL PAGE IS OF POOR QUALITY

Table B-4. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 67.76 Equivalent Rotor Speed = 6732.91 Equivalent Weight Flow = 25.500 lb/sec
Uniform Inlet
U.S. Customary Units

INLET GUIDE VANE	PCT SPAN	95.79	91.71	86.89	70.41	49.21	29.10	13.80	9.00	4.70	PCT SPAN
	DIA	16.748	16.991	17.276	18.252	19.507	20.697	21.603	21.887	22.142	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	11.945	11.650	11.622	12.268	13.011	13.266	13.850	14.492	14.258	BETA 2
	V 1	256.55	260.10	261.97	269.19	270.54	261.73	243.67	234.79	228.76	V 1
	V 2	288.82	295.03	298.80	303.20	302.69	297.29	288.98	285.27	281.24	V 2
	VZ 1	256.55	260.09	261.94	269.09	270.26	261.25	243.06	234.15	228.0.	VZ 1
	VZ 2	282.56	288.92	292.61	295.98	294.09	287.85	278.47	273.85	268.87	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	59.78	59.57	60.18	64.36	67.95	67.86	68.66	70.78	73.34	V-THETA 2
	M 1	0.2310	0.2342	0.2359	0.2425	0.2438	0.2357	0.2193	0.2112	0.2058	M 1
	M 2	0.2604	0.2661	0.2696	0.2736	0.2731	0.2682	0.2606	0.2571	0.2535	M 2
	TURN	-11.94	-11.65	-11.62	-12.26	-12.97	-13.20	-13.74	-14.37	-15.12	TURN
	UUBAR	0.0474	0.0368	0.0181	0.0343	0.0509	0.0543	0.0209	0.0	0.0	UUBAR
	DFAC	-0.032	-0.042	-0.047	-0.028	-0.014	-0.025	-0.063	-0.080	-0.084	DFAC
	EFFP	0.8524	0.8887	0.9444	0.8863	0.8356	0.8456	0.9520	1.0000	0.9699	EFFP
	INCID	5.9000	5.9200	5.9700	6.2500	6.6600	7.0000	7.3200	7.4200	7.4200	INCID
	DEVM	5.055	5.651	6.061	6.544	7.266	8.414	8.956	8.681	8.164	DEVM
	P 1	14.641	14.667	14.677	14.717	14.737	14.717	14.656	14.626	14.606	P 1
	P 2	14.616	14.646	14.667	14.697	14.707	14.687	14.646	14.626	14.606	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	UUBAR FS										UUBAR FS
	P1 FS										P1 FS
	LOSS PARA FS										LOSS PARA FS
ROTOR F	PCT SPAN	95.01	89.99	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA	16.721	16.943	17.164	17.828	18.713	19.598	20.262	20.483	20.705	DIA
ROTOR -L.E.	BETA 2	9.509	9.423	9.445	10.025	10.586	10.791	11.285	11.808	12.404	BETA 2
ROTOR -T.E.	BETA 3	61.666	58.566	55.878	48.329	46.909	46.896	51.413	53.389	55.255	BETA 3
	BETA(PR) 2	50.267	50.412	50.596	51.289	52.834	54.742	56.456	57.045	57.666	BETA(PR) 2
	BETA(PR) 3	-14.205	-9.136	-4.972	-.701	12.493	19.051	22.604	24.451	26.922	BETA(PR) 3
	V 2	362.92	365.89	369.29	376.13	379.20	375.43	366.76	362.47	357.92	V 2
	V 3	647.40	647.95	647.48	644.14	624.06	596.94	572.79	561.54	548.64	V 3
	VZ 2	357.93	360.95	364.27	370.19	371.97	367.26	357.57	352.55	347.18	VZ 2
	VZ 3	306.73	337.39	363.09	428.13	425.98	407.23	356.53	334.18	312.00	VZ 3
	V-THETA 2	59.96	59.90	60.60	65.44	69.52	70.00	71.35	73.70	76.35	V-THETA 2
	V-THETA 3	566.87	552.01	535.83	481.01	455.36	435.12	446.82	449.80	449.83	V-THETA 3
	V(PR) 2	560.0	566.4	573.9	592.1	616.2	637.1	648.3	649.4	650.4	V(PR) 2
	V(PR) 3	318.7	343.6	364.8	430.6	437.0	432.2	387.9	368.9	351.8	V(PR) 3
	VTHETA PR2	-430.6	-436.5	-443.4	-461.9	-490.7	-519.5	-539.3	-543.8	-548.5	VTHETA PR2
	VTHETA PR3	77.6	64.3	31.6	-42.7	-94.4	-140.6	-168.4	-151.9	-156.4	VTHETA PR3
	U 2	490.58	496.40	504.01	527.33	560.18	589.50	610.68	617.52	624.61	U 2
	U 3	491.23	497.75	504.24	523.75	548.75	575.75	595.25	601.75	608.27	U 3
	M 2	0.3286	0.3313	0.3344	0.3408	0.3436	0.3401	0.3321	0.3281	0.3239	M 2
	M 3	0.5760	0.5770	0.5771	0.5760	0.5574	0.5320	0.5083	0.4976	0.4855	M 3
	M(PR) 2	0.5069	0.5129	0.5197	0.5364	0.5584	0.5772	0.5870	0.5879	0.5887	M(PR) 2
	M(PR) 3	0.2835	0.3060	0.3252	0.3850	0.3904	0.3852	0.3442	0.3269	0.3113	M(PR) 3
	TURN(PR)	64.369	59.496	55.562	45.577	40.302	35.636	33.798	32.549	30.712	TURN(PR)
	UUBAR	0.3515	0.2810	0.2157	0.0178	-0.0087	0.0105	0.1061	0.1360	0.1598	UUBAR
	LOSS PARA	0.1098	0.0907	0.0713	0.0062	-0.0031	0.0038	0.0393	0.0503	0.0586	LOSS PARA
	DFAC	0.7239	0.6777	0.6389	0.5150	0.5176	0.5297	0.6301	0.6630	0.6908	DFAC
	EFFP	0.7811	0.8153	0.8540	0.9862	1.0040	0.9915	0.9046	0.8793	0.8576	EFFP
	EFF	0.7744	0.8095	0.8493	0.9858	1.0042	0.9912	0.9016	0.8755	0.8533	EFF
	INCID	-5.383	-3.988	-3.405	-2.546	-1.675	-0.825	-0.375	-0.678	-1.520	INCID
	DEVM	19.798	17.015	15.033	13.697	10.272	9.486	11.198	13.423	17.168	DEVM
	P 2	14.616	14.646	14.667	14.697	14.707	14.687	14.646	14.626	14.606	P 2
	P 3	18.065	18.207	18.318	18.551	18.536	18.399	18.227	18.136	18.030	P 3
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	T 3	560.500	559.800	558.750	554.900	554.000	553.500	555.800	556.250	556.400	T 3
STATOR F	PCT SPAN	95.81	92.01	86.21	69.91	49.21	29.51	14.11	9.31	4.51	PCT SPAN
	DIA	16.659	16.803	17.023	17.641	18.426	19.173	19.757	19.939	20.121	DIA
STATOR-L.E.	BETA 3	61.768	58.157	55.176	47.394	45.830	45.872	50.264	52.213	54.047	BETA 3
STATOR-T.E.	BETA 4	15.579	14.508	13.002	10.886	10.698	11.144	11.391	11.145	10.903	BETA 4
	V 3	645.83	650.13	653.05	654.12	635.14	609.01	583.92	572.22	558.84	V 3
	V 4	410.50	422.25	441.67	473.96	475.17	461.82	449.03	442.40	433.91	V 4
	VZ 3	305.50	343.00	372.90	442.68	442.15	423.24	372.41	349.78	327.31	VZ 3
	VZ 4	395.40	408.74	430.26	465.19	466.35	452.02	436.32	431.83	427.40	VZ 4
	V-THETA 3	569.01	552.27	536.05	481.31	455.14	436.32	447.99	451.14	451.27	V-THETA 3
	V-THETA 4	110.24	105.77	99.35	89.67	88.10	89.04	88.31	85.08	81.56	V-THETA 4
	M 3	0.5766	0.5790	0.5824	0.5856	0.5679	0.5434	0.5187	0.5075	0.4950	M 3
	M 4	0.3582	0.3690	0.3868	0.4175	0.4190	0.4070	0.3945	0.3884	0.3806	M 4
	TURN(PR)	46.190	43.648	42.170	36.494	35.089	34.645	38.761	40.949	43.020	TURN(PR)
	UUBAR	0.0391	0.0492	0.0377	0.0289	0.0403	0.0604	0.0695	0.0657	0.0600	UUBAR
	LOSS PARA	0.0120	0.0154	0.0120	0.0097	0.0142	0.0224	0.0266	0.0255	0.0235	LOSS PARA
	DFAC	0.5920	0.5737	0.5443	0.4817	0.4623	0.4599	0.4758	0.4839	0.4921	DFAC
	EFFP	0.9417	0.9245	0.9387	0.9464	0.9190	0.8726	0.8460	0.8516	0.8621	EFFP
	INCID	-3.232	-1.246	-0.631	-4.925	-6.826	-8.788	-7.396	-6.663	-6.346	INCID
	DEVM	20.828	20.506	18.799	15.631	14.785	15.117	15.343	14.288	13.134	DEVM
	P 3	18.065	18.207	18.318	18.551	18.536	18.399	18.227	18.136	18.030	P 3
	P 4	17.924	18.025	18.176	18.439	18.389	18.197	18.015	17.944	17.863	P 4
	T 3	560.500	559.800	558.750	554.900	554.000	553.500	555.800	556.250	556.400	T 3
	T 4	560.500	559.800	558.750	554.900	554.000	553.500	555.800	556.250	556.400	T 4

Table B-4. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 67.11 Equivalent Rotor Speed =6667.62 Equivalent Weight Flow = 23.353 lb/sec
Uniform Inlet
U.S. Customary Units

INLET GUIDE VANE	PCT SPAN	95.79	91.71	86.89	70.41	49.21	29.10	13.80	9.00	4.70	PCT SPAN
	DIA	16.749	16.991	17.276	18.252	19.507	20.697	21.603	21.887	22.142	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	12.544	11.981	11.610	11.902	12.887	13.431	13.670	14.387	15.356	BETA 2
	V 1	243.51	241.87	244.89	246.45	243.89	232.97	217.15	209.86	204.12	V 1
	V 2	258.04	266.37	272.03	276.22	274.90	267.92	262.14	257.61	252.23	V 2
	VZ 1	243.51	241.86	244.87	246.36	243.64	232.55	216.61	209.29	203.52	VZ 1
	VZ 2	251.88	260.54	266.41	270.01	267.23	259.23	252.79	247.46	241.02	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	56.04	55.29	54.73	56.91	61.14	61.91	61.49	63.48	66.19	V-THETA 2
	M 1	0.2192	0.2177	0.2204	0.2218	0.2195	0.2096	0.1952	0.1886	0.1834	M 1
	M 2	0.2324	0.2400	0.2451	0.2689	0.2477	0.2414	0.2361	0.2320	0.2271	M 2
	TURN	-12.54	-11.98	-11.61	-11.89	-12.85	-13.36	-13.57	-14.27	-15.21	TURN
	UUBAR	0.1465	0.0742	0.0413	0.0204	0.0208	0.0228	-0.0263	-0.0282	0.0	UUBAR
	DFAC	0.033	-0.009	-0.020	-0.026	-0.022	-0.036	-0.084	-0.093	-0.088	DFAC
	EFFP	0.4610	0.7451	0.8525	0.9275	0.9299	0.9350	1.0595	1.0574	0.9997	EFFP
	INCID	5.9000	5.9200	5.9700	6.2500	6.6600	7.0000	7.3200	7.4200	7.4200	INCID
	DEVM	4.456	5.321	6.073	6.910	7.389	8.250	9.134	8.785	8.066	DEVM
	P 1	14.673	14.678	14.693	14.713	14.723	14.703	14.663	14.642	14.627	P 1
	P 2	14.602	14.642	14.673	14.703	14.713	14.693	14.673	14.653	14.627	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	UUBAR FS										UUBAR FS
	P1 FS										P1 FS
	LOSS PARA FS										LOSS PARA FS
ROTOR F	PCT SPAN	95.01	89.99	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA	16.721	16.943	17.164	17.828	18.713	19.598	20.262	20.483	20.705	DIA
	BETA 2	10.028	9.727	9.471	9.766	10.531	10.974	11.186	11.772	12.537	BETA 2
ROTOR -L.E.	BETA 3	66.965	63.040	59.712	50.084	50.037	50.951	56.477	59.536	60.421	BETA 3
ROTOR -T.E.	BETA(PR) 2	53.500	53.355	53.345	54.093	55.647	57.652	59.143	59.623	60.595	BETA(PR) 2
	BETA(PR) 3	-20.930	-13.995	-8.745	4.422	12.348	18.566	22.058	23.480	26.353	BETA(PR) 3
	V 2	322.83	329.06	334.99	341.34	342.96	336.83	331.33	326.03	319.63	V 2
	V 3	632.00	634.05	635.54	635.49	600.63	577.77	558.35	550.05	541.51	V 3
	VZ 2	317.90	324.33	330.41	336.27	336.48	329.30	323.15	317.16	309.86	VZ 2
	VZ 3	247.01	287.12	320.45	407.13	385.51	363.48	307.87	286.64	266.87	VZ 3
	V-THETA 2	56.21	55.59	55.12	57.87	62.55	63.85	63.90	66.09	68.41	V-THETA 2
	V-THETA 3	580.93	564.48	548.64	487.13	460.03	448.08	464.73	468.41	470.17	V-THETA 3
	V(PR) 2	534.4	543.4	553.5	573.4	596.6	616.2	621.0	632.0	632.2	V(PR) 2
	V(PR) 3	266.2	297.5	324.5	409.3	395.3	384.6	333.7	315.3	296.4	V(PR) 3
	VTHETA PR2	-429.6	-436.0	-444.0	-464.4	-492.2	-519.6	-540.9	-547.4	-549.8	VTHETA PR2
	VTHETA PR3	94.5	71.6	49.3	-31.5	-84.4	-122.1	-124.8	-127.5	-132.2	VTHETA PR3
	U 2	485.82	491.58	499.12	522.22	554.74	583.78	604.76	611.53	618.75	U 2
	U 3	486.46	492.92	499.35	518.67	544.42	570.16	589.48	595.91	602.37	U 3
	M 2	0.2916	0.2973	0.3028	0.3086	0.3101	0.3045	0.2994	0.2945	0.2887	M 2
	M 3	0.5610	0.5623	0.5651	0.5672	0.5349	0.5133	0.4939	0.4860	0.4779	M 3
	M(PR) 2	0.4827	0.4910	0.5003	0.5185	0.5395	0.5570	0.5703	0.5710	0.5710	M(PR) 2
	M(PR) 3	0.2363	0.2643	0.2886	0.3654	0.3520	0.3417	0.2952	0.2786	0.2643	M(PR) 3
	TURN(PR)	74.286	67.274	62.079	49.659	43.258	39.034	37.095	35.804	34.218	TURN(PR)
	UUBAR	0.3974	0.3205	0.2524	0.0130	0.0372	0.0613	0.1667	0.1901	0.2043	UUBAR
	LOSS PARA	0.1196	0.1016	0.0827	0.0045	0.0133	0.0225	0.0620	0.0706	0.0753	LOSS PARA
	DFAC	0.8184	0.7590	0.7094	0.5445	0.5789	0.6132	0.7220	0.7554	0.7827	DFAC
	EFFP	0.7741	0.8103	0.8444	0.9863	0.9675	0.9407	0.8697	0.8537	0.8424	EFFP
	EFF	0.7722	0.8043	0.8394	0.9858	0.9664	0.9491	0.8655	0.8490	0.8373	EFF
	INCID	-2.150	-1.045	-0.456	0.258	1.135	2.000	2.320	2.108	1.419	INCID
	DEVM	13.114	12.181	11.224	12.419	10.127	9.006	10.454	12.954	16.601	DEVM
	P 2	14.602	14.642	14.673	14.703	14.713	14.693	14.673	14.653	14.627	P 2
	P 3	18.109	18.265	18.392	18.674	18.472	18.402	18.301	18.250	18.200	P 3
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	T 3	561.300	560.750	560.400	555.900	554.750	555.000	557.750	558.250	558.600	T 3
STATOR F	PCT SPAN	95.81	92.01	86.21	69.91	49.21	29.51	14.11	9.31	4.51	PCT SPAN
	DIA	16.659	16.803	17.023	17.641	18.426	19.173	19.757	19.936	20.121	DIA
STATOR-L.E.	BETA 3	67.162	62.600	58.924	49.100	48.873	49.804	55.130	57.192	58.961	BETA 3
STATOR-T.E.	BETA 4	17.593	16.666	15.151	12.474	11.697	12.207	12.412	12.446	12.469	BETA 4
	V 3	630.50	628.13	640.88	645.06	610.94	588.13	568.68	560.41	551.46	V 3
	V 4	377.32	391.58	414.90	444.48	437.48	428.44	424.94	422.56	419.52	V 4
	VZ 3	244.72	292.74	330.79	422.23	401.50	379.54	324.69	303.17	283.62	VZ 3
	VZ 4	359.66	375.09	400.40	433.77	427.58	417.76	413.27	410.56	407.65	VZ 4
	V-THETA 3	581.07	564.75	548.87	487.43	459.81	448.32	465.65	469.81	471.67	V-THETA 3
	V-THETA 4	114.04	112.29	108.42	96.96	90 CR	90.38	90.66	90.61	90.15	V-THETA 4
	M 3	0.5596	0.5652	0.5702	0.5764	0.5446	0.5240	0.5038	0.4956	0.4871	M 3
	M 4	0.3284	0.3412	0.3624	0.3904	0.3845	0.3762	0.3721	0.3688	0.3665	M 4
	TURN(PR)	49.569	46.924	43.769	36.619	36.636	37.523	42.618	44.584	46.342	TURN(PR)
	UUBAR	0.0524	0.0638	0.0800	0.0644	0.0449	0.0676	0.0659	0.0609	0.0556	UUBAR
	LOSS PARA	0.0160	0.0198	0.0158	0.0215	0.0158	0.0249	0.0252	0.0235	0.0218	LOSS PARA
	DFAC	0.6389	0.6156	0.5794	0.5200	0.5042	0.5059	0.5150	0.5178	0.5202	DFAC
	EFFP	0.9238	0.9081	0.9234	0.8911	0.9174	0.8702	0.8649	0.8711	0.8795	EFFP
	INCID	2.161	3.197	3.117	-3.219	-3.782	-4.850	-2.523	-1.734	-1.398	INCID
	DEVM	22.842	22.664	20.948	17.218	15.982	16.136	16.359	15.583	14.710	DEVM
	P 3	18.109	18.265	18.392	18.674	18.472	18.402	18.301	18.250	18.200	P 3
	P 4	17.927	18.038	18.210	18.432	18.321	18.189	18.109	18.078	18.048	P 4
	T 3	561.300	560.750	560.400	555.900	554.750	555.000	557.750	558.250	558.600	T 3
	T 4	561.300	560.750	560.400	555.900	554.750	555.000	557.750	558.250	558.600	T 4

ORIGINAL PAGE IS OF POOR QUALITY

Table B-4. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 68.04 Equivalent Rotor Speed = 6760.40 Equivalent Weight Flow = 21.627 lb/sec
Uniform Inlet
U.S. Customary Units

INLET GUIDE VANE	PCT SPAN	95.79	91.71	86.89	70.41	49.21	29.10	13.80	9.00	4.76	PCT SPAN
	DIA	16.749	16.991	17.276	18.252	19.507	20.697	21.603	21.887	22.142	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	12.831	12.243	11.743	11.948	12.827	13.070	13.554	14.087	14.862	BETA 2
	V 1	223.80	224.06	226.51	229.43	232.51	231.59	209.49	202.60	198.50	V 1
	V 2	247.88	252.77	256.07	259.41	260.09	256.96	246.04	243.50	239.10	V 2
	VZ 1	223.80	224.05	226.50	229.34	232.27	231.19	208.97	202.65	197.92	VZ 1
	VZ 2	241.68	247.00	250.66	253.54	255.48	248.99	234.32	234.21	229.00	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	55.04	53.60	52.10	53.65	57.71	57.80	57.69	58.77	60.77	V-THETA 2
	M 1	0.2013	0.2015	0.2037	0.2064	0.2092	0.1993	0.1883	0.1821	0.1784	M 1
	M 2	0.2231	0.2276	0.2306	0.2336	0.2348	0.2314	0.2233	0.2191	0.2152	M 2
	TURN	-12.83	-12.24	-11.74	-11.94	-12.79	-13.00	-13.45	-13.47	-14.72	TURN
	UUBAR	0.0370	0.0125	0.0	0.0	0.0228	-0.0126	0.0140	0.0150	0.0470	UUBAR
	DFAC	-0.006	-0.032	-0.037	-0.035	-0.017	-0.048	-0.064	-0.073	-0.065	DFAC
	EFFP	0.8619	0.9577	1.0000	1.0002	0.9202	1.0366	0.9667	0.9067	0.9067	EFFP
	INCID	5.9000	5.9200	5.9700	6.2500	6.6600	7.0000	7.3200	7.4200	7.4200	INCID
	DEVM	4.170	5.058	5.940	6.863	7.450	8.610	9.250	9.082	8.557	DEVM
	P 1	14.663	14.673	14.683	14.703	14.728	14.703	14.673	14.653	14.643	P 1
	P 2	14.648	14.668	14.683	14.703	14.718	14.708	14.668	14.648	14.628	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	UUBAR FS										UUBAR FS
	P1 FS										P1 FS
	LOSS PARA FS										LOSS PARA FS
ROTOR F	PCT SPAN	95.01	89.99	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA	16.721	16.943	17.164	17.826	18.713	19.596	20.262	20.483	20.705	DIA
ROTOR -L.E.	BETA 2	10.269	9.955	9.597	9.824	10.501	10.696	11.112	11.551	12.159	BETA 2
ROTOR -T.E.	BETA 3	68.573	64.707	61.649	51.595	51.789	53.298	58.603	60.692	61.695	BETA 3
	BETA(PR) 2	55.135	55.365	55.023	56.441	57.678	59.332	61.110	61.814	62.901	BETA(PR) 2
	BETA(PR) 3	-20.639	-13.525	-8.344	5.105	12.383	19.708	24.152	25.311	26.304	BETA(PR) 3
	V 2	309.69	311.76	314.73	319.41	324.62	322.57	312.93	307.56	302.44	V 2
	V 3	622.38	624.31	624.90	626.87	599.39	569.80	550.54	548.31	548.60	V 3
	VZ 2	304.73	307.06	310.31	315.05	316.52	315.05	305.27	299.43	293.64	VZ 2
	VZ 3	227.13	266.46	296.68	389.31	370.51	340.12	286.40	286.02	286.07	VZ 3
	V-THETA 2	55.21	53.89	52.47	54.56	59.04	59.62	59.96	61.70	65.27	V-THETA 2
	V-THETA 3	578.78	563.67	549.82	491.11	470.65	456.27	469.26	477.45	483.18	V-THETA 3
	V(PR) 2	533.1	540.3	549.6	570.0	596.1	614.5	632.7	634.9	636.9	V(PR) 2
	V(PR) 3	244.3	275.5	300.2	391.1	380.0	362.4	315.3	297.9	289.4	V(PR) 3
	VTHETA PR2	-437.4	-444.5	-453.6	-474.9	-503.4	-532.3	-553.2	-558.8	-564.1	VTHETA PR2
	VTHETA PR3	85.5	64.1	43.5	-34.8	-81.3	-121.8	-126.4	-126.8	-127.6	VTHETA PR3
	U 2	492.58	498.42	506.06	529.49	562.46	591.90	613.17	620.04	627.36	U 2
	U 3	493.23	499.78	506.30	525.89	551.99	578.10	597.68	604.20	610.75	U 3
	M 2	0.2795	0.2814	0.2842	0.2869	0.2933	0.2914	0.2825	0.2776	0.2729	M 2
	M 3	0.5517	0.5538	0.5547	0.5565	0.5326	0.5050	0.4880	0.4836	0.4834	M 3
	M(PR) 2	0.4812	0.4877	0.4962	0.5148	0.5385	0.5596	0.5713	0.5731	0.5747	M(PR) 2
	M(PR) 3	0.2166	0.2444	0.2664	0.3485	0.3378	0.3212	0.2783	0.2627	0.2556	M(PR) 3
	TURN(PR)	75.631	68.816	63.958	51.326	45.260	39.574	36.922	36.480	36.180	TURN(PR)
	UUBAR	0.4483	0.3723	0.3052	0.0805	0.0749	0.1166	0.1998	0.2210	0.2741	UUBAR
	LOSS PARA	0.1351	0.1183	0.1001	0.0209	0.0268	0.0495	0.0732	0.0812	0.0820	LOSS PARA
	DFAC	0.8583	0.7989	0.7940	0.5782	0.6124	0.6514	0.7573	0.7978	0.8120	DFAC
	EFFP	0.7553	0.7861	0.8204	0.9565	0.9426	0.9075	0.8462	0.8396	0.8355	EFFP
	EFF	0.7479	0.7814	0.8146	0.9550	0.9407	0.9045	0.8413	0.8344	0.8301	EFF
	INCID	-0.515	0.969	1.622	2.607	3.172	3.773	4.242	4.110	3.332	INCID
	DEVM	13.403	12.649	11.664	11.101	10.102	10.144	12.740	14.280	16.552	DEVM
	P 2	14.648	14.668	14.683	14.703	14.718	14.708	14.668	14.648	14.628	P 2
	P 3	18.085	18.236	18.361	18.663	18.563	18.417	18.326	18.346	18.397	P 3
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	T 3	561.750	561.300	560.700	557.000	556.500	556.750	559.200	560.000	561.000	T 3
STATOR F	PCT SPAN	95.81	92.01	86.21	69.91	49.21	29.51	14.11	9.31	4.51	PCT SPAN
	DIA	16.659	16.803	17.023	17.641	18.426	19.173	19.757	19.939	20.121	DIA
STATOR-L.E.	BETA 3	68.803	64.254	60.814	50.593	50.555	52.073	57.162	59.172	60.342	BETA 3
STATOR-T.E.	BETA 4	16.307	16.085	15.510	14.072	12.236	12.397	11.872	11.547	11.226	BETA 4
	V 3	620.93	626.33	630.07	636.18	609.64	580.67	560.91	556.61	556.78	V 3
	V 4	333.67	351.52	376.00	417.91	409.71	402.60	406.85	409.09	412.89	V 4
	VZ 3	224.51	272.06	307.24	403.76	387.02	356.52	303.66	285.79	276.02	VZ 3
	VZ 4	320.23	337.72	362.24	405.16	399.93	392.28	394.52	398.76	402.45	VZ 4
	V-THETA 3	578.92	564.14	550.04	491.41	470.42	457.53	470.49	478.68	484.73	V-THETA 3
	V-THETA 4	93.66	97.39	100.52	101.56	86.73	86.22	82.94	81.47	79.88	V-THETA 4
	M 3	0.5504	0.5557	0.5595	0.5673	0.5425	0.5154	0.4956	0.4931	0.4928	M 3
	M 4	0.2896	0.3055	0.3274	0.3660	0.3588	0.3524	0.3536	0.3571	0.3602	M 4
	TURN(PR)	52.497	48.169	45.301	36.510	38.280	39.600	45.192	47.524	49.012	TURN(PR)
	UUBAR	0.0867	0.0933	0.0816	0.0784	0.0882	0.0825	0.0658	0.0645	0.0733	UUBAR
	LOSS PARA	0.0266	0.0290	0.0258	0.0280	0.0310	0.0304	0.0251	0.0249	0.0287	LOSS PARA
	DFAC	0.7130	0.6809	0.6386	0.5542	0.5570	0.5514	0.5526	0.5533	0.5550	DFAC
	EFFP	0.8898	0.8771	0.8862	0.8769	0.8550	0.8557	0.8746	0.8729	0.8523	EFFP
	INCID	3.803	4.852	5.007	-1.726	-2.099	-2.583	-0.487	0.311	-0.033	INCID
	DEVM	21.556	22.084	21.306	18.814	16.322	16.367	15.821	14.687	13.455	DEVM
	P 3	18.085	18.236	18.361	18.663	18.563	18.417	18.326	18.346	18.397	P 3
	P 4	17.793	17.914	18.075	18.377	18.266	18.165	18.140	18.165	18.190	P 4
	T 3	561.750	561.300	560.700	557.000	556.500	556.750	559.200	560.000	561.000	T 3
	T 4	561.750	561.300	560.700	557.000	556.500	556.750	559.200	560.000	561.000	T 4

Table B-4. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 48.01 Equivalent Rotor Speed =4770.11 Equivalent Weight Flow = 23.649 lb/sec
Uniform Inlet
U.S. Customary Units

INLET GUIDE VANE	PCT SPAN	95.79	91.71	86.89	70.41	49.21	29.10	13.80	9.00	4.70	PCT SPAN
	DIA	16.749	16.991	17.276	18.252	19.507	20.697	21.603	21.887	22.142	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	12.312	12.026	11.817	11.882	12.836	13.164	13.799	14.137	14.437	BETA 2
	V 1	239.56	240.94	242.95	247.36	247.12	241.90	228.17	216.64	208.51	V 1
	V 2	267.54	271.79	281.74	278.62	278.20	271.48	260.77	255.22	251.81	V 2
	VZ 1	239.40	240.93	242.93	247.27	246.86	241.45	227.60	216.05	207.90	VZ 1
	VZ 2	261.38	265.80	275.70	272.39	270.49	262.96	251.33	245.44	241.63	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	57.05	56.62	57.68	57.31	61.63	61.50	61.73	61.82	62.21	V-THETA 2
	M 1	0.2154	0.2168	0.2186	0.2227	0.2224	0.2177	0.2052	0.1948	0.1874	M 1
	M 2	0.2410	0.2449	0.2540	0.2511	0.2507	0.2446	0.2349	0.2298	0.2267	M 2
	TURN	-12.51	-12.02	-11.81	-11.87	-12.80	-13.09	-13.69	-14.02	-14.30	TURN
	UUBAR	0.0541	0.0427	0.0210	0.0269	0.0101	0.0423	0.0594	0.0264	0.0	UUBAR
	DFAC	-0.022	-0.033	-0.063	-0.031	-0.022	-0.014	-0.025	-0.051	-0.072	DFAC
	EFFP	0.8244	0.8668	0.9437	0.9314	0.9642	0.8625	0.8400	0.9372	1.0000	EFFP
	INCID	5.9000	5.9700	6.2500	6.6600	7.0000	7.3200	7.4200	7.4200	7.4200	INCID
	DEVM	4.688	5.275	5.865	6.930	7.441	8.516	9.007	9.033	8.977	DEVM
	P 1	14.661	14.676	14.686	14.711	14.721	14.716	14.676	14.636	14.610	P 1
	P 2	14.636	14.650	14.676	14.701	14.716	14.696	14.651	14.626	14.610	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	UUBAR FS										UUBAR FS
	PI FS										PI FS
	LOSS PARA FS										LOSS PARA FS
ROTOR F	PCT SPAN	95.01	89.99	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA	16.721	16.943	17.164	17.828	18.713	19.598	20.262	20.483	20.705	DIA
ROTOR -L.E.	BETA 2	9.830	9.757	9.627	9.746	10.484	10.752	11.292	11.573	11.795	BETA 2
ROTOR -T.E.	BETA 3	36.877	31.116	46.843	40.809	40.147	38.927	40.217	42.508	45.396	BETA 3
	BETA(PR) 2	41.324	41.673	41.123	42.904	44.413	46.675	48.917	49.888	50.619	BETA(PR) 2
	BETA(PR) 3	-15.295	-8.803	-4.873	3.025	10.369	15.416	19.493	21.195	22.554	BETA(PR) 3
	V 2	335.13	336.00	347.37	344.43	347.24	341.47	324.54	322.41	319.08	V 2
	V 3	506.95	518.84	532.53	529.17	496.90	484.99	463.33	444.80	424.08	V 3
	VZ 2	330.21	331.14	342.46	339.28	340.73	334.08	321.27	314.34	310.20	VZ 2
	VZ 3	276.39	324.98	364.08	400.37	379.44	376.49	352.72	326.84	296.81	VZ 3
	V-THETA 2	57.22	56.94	58.09	58.28	63.05	63.44	64.15	64.37	64.76	V-THETA 2
	V-THETA 3	423.61	402.97	388.28	345.70	320.05	304.09	298.25	299.48	300.94	V-THETA 3
	V(PR) 2	439.7	443.3	454.6	463.3	477.5	487.9	490.2	487.2	490.3	V(PR) 2
	V(PR) 3	288.6	330.7	365.8	401.4	386.4	391.8	375.5	352.4	325.9	V(PR) 3
	VTHETA PR2	-290.3	-294.7	-299.0	-315.3	-333.8	-354.2	-368.5	-373.1	-377.9	VTHETA PR2
	VTHETA PR3	75.6	50.3	31.0	-25.4	-69.4	-103.8	-123.5	-126.7	-130.6	VTHETA PR3
	U 2	347.57	351.69	357.08	373.60	396.87	417.64	432.65	437.50	442.66	U 2
	U 3	346.04	352.64	357.24	371.06	384.48	407.90	421.72	426.32	430.94	U 3
	M 2	0.3029	0.3037	0.3142	0.3115	0.3141	0.3086	0.2978	0.2917	0.2882	M 2
	M 3	0.4561	0.4655	0.4787	0.4765	0.4468	0.4358	0.4156	0.3984	0.3796	M 3
	M(PR) 2	0.3974	0.4007	0.4112	0.4190	0.4319	0.4411	0.4429	0.4419	0.4426	M(PR) 2
	M(PR) 3	0.2585	0.2967	0.3288	0.3615	0.3474	0.3521	0.3368	0.3150	0.2914	M(PR) 3
	TURN(PR)	56.510	50.427	45.989	39.266	34.000	31.187	29.545	28.620	28.904	TURN(PR)
	UUBAR	0.4039	0.2526	0.1093	-0.0360	0.0090	-0.0154	0.0278	0.0962	0.1732	UUBAR
	LOSS PARA	0.1255	0.0816	0.0361	-0.0124	0.0033	-0.0057	0.0105	0.0364	0.0625	LOSS PARA
	DFAC	0.0124	0.5096	0.4364	0.3475	0.3856	0.3843	0.4220	0.4712	0.5294	DFAC
	EFFP	0.6913	0.7855	0.8995	1.0306	0.9891	1.0202	0.9685	0.8974	0.8067	EFFP
	EFF	0.6869	0.7826	0.8978	1.0311	0.9890	1.0206	0.9680	0.8970	0.8065	EFF
	INCID	-14.326	-12.727	-12.879	-10.931	-10.098	-8.898	-7.976	-7.849	-8.383	INCID
	DEVM	16.715	17.346	15.133	11.623	8.152	5.865	7.099	10.161	13.913	DEVM
	P 2	14.636	14.650	14.676	14.701	14.716	14.696	14.651	14.626	14.610	P 2
	P 3	16.140	16.321	16.513	16.604	16.412	16.402	16.271	16.129	15.978	P 3
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	T 3	540.100	539.400	538.500	536.500	535.300	534.900	535.000	535.100	535.400	T 3
STATOR F	PCT SPAN	95.81	92.01	86.21	69.91	49.21	29.51	14.11	9.31	4.51	PCT SPAN
	DIA	16.659	16.803	17.023	17.641	18.426	19.173	19.757	19.939	20.121	DIA
STATOR-L.E.	BETA 3	56.880	50.791	46.396	40.760	39.408	38.262	39.535	41.803	44.656	BETA 3
STATOR-T.E.	BETA 4	10.375	9.657	8.492	6.349	6.449	8.558	9.251	8.659	7.920	BETA 4
	V 3	505.91	520.33	536.49	536.12	504.49	493.57	471.37	452.37	431.09	V 3
	V 4	419.70	437.91	466.46	492.59	475.97	465.50	454.34	447.24	439.85	V 4
	VZ 3	276.42	328.91	369.98	409.33	389.35	386.64	382.30	336.03	305.55	VZ 3
	VZ 4	412.82	431.65	461.25	484.30	472.33	459.20	446.52	439.84	432.92	VZ 4
	V-THETA 3	423.71	403.16	388.44	345.91	319.90	304.93	299.04	300.48	301.96	V-THETA 3
	V-THETA 4	79.58	73.45	68.87	54.44	53.36	69.10	72.73	66.99	59.67	V-THETA 4
	M 3	0.4531	0.4669	0.4825	0.4831	0.4539	0.4438	0.4231	0.4054	0.3857	M 3
	M 4	0.3735	0.3904	0.4171	0.4422	0.4272	0.4177	0.4073	0.4007	0.3900	M 4
	TURN(PR)	46.505	41.133	37.899	33.835	32.916	29.618	30.165	33.009	36.584	TURN(PR)
	UUBAR	0.0547	0.0669	0.0498	0.0103	0.0233	0.0493	0.1178	0.0877	0.0688	UUBAR
	LOSS PARA	0.0172	0.0213	0.0102	0.0035	0.0083	0.0363	0.0454	0.0342	0.0256	LOSS PARA
	DFAC	0.3909	0.3643	0.3270	0.2684	0.2489	0.2398	0.2272	0.2189	0.2172	DFAC
	EFFP	0.8379	0.7893	0.8138	0.9401	0.8056	0.1856	-0.5481	-2.6332	-5.7690	EFFP
	INCID	-8.171	-8.611	-9.411	-12.119	-13.247	-16.345	-18.124	-17.077	-15.747	INCID
	DEVM	15.625	15.656	14.290	11.040	10.537	12.537	13.211	11.814	10.164	DEVM
	P 3	16.140	16.321	16.513	16.604	16.412	16.402	16.271	16.129	15.978	P 3
	P 4	16.022	16.170	16.392	16.579	16.462	16.200	16.069	15.978	15.877	P 4
	T 3	540.100	539.400	538.500	536.500	535.300	534.900	535.000	535.100	535.400	T 3
	T 4	540.100	539.400	538.500	536.500	535.300	534.900	535.000	535.100	535.400	T 4

ORIGINAL PAGE IS
OF POOR QUALITY

Table B-4. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 47.72 Equivalent Rotor Speed = 4741.84 Equivalent Weight Flow = 21.810 lb/sec
Uniform Inlet
U.S. Customary Units

INLET GUIDE VANE	PCT SPAN	95.79	91.71	86.89	70.41	49.21	29.10	13.60	9.00	4.76	PCT SPAN
	DIA	16.749	16.991	17.276	18.252	19.507	20.697	21.603	21.887	22.142	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	12.508	12.243	12.031	12.164	12.794	13.102	13.684	13.981	14.269	BETA 2
	V 1	227.00	227.00	228.05	232.26	235.27	228.16	211.87	206.46	199.20	V 1
	V 2	247.61	252.51	255.82	260.18	260.05	257.74	248.97	245.68	241.11	V 2
	VZ 1	227.00	227.00	228.03	232.17	235.05	227.74	211.34	205.92	198.61	VZ 1
	VZ 2	241.72	246.75	250.15	254.89	252.89	249.28	240.08	236.42	231.53	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	53.62	53.54	53.31	54.76	57.43	58.02	58.45	58.86	58.88	V-THETA 2
	M 1	0.2042	0.2051	0.2089	0.2117	0.2092	0.1965	0.1856	0.1790	M 1	
	M 2	0.2229	0.2273	0.2303	0.2343	0.2342	0.2317	0.2241	0.2211	0.2170	M 2
	TURN	-12.51	-12.24	-12.03	-12.19	-12.76	-13.03	-13.58	-13.86	-14.14	TURN
	UUBAR	0.0599	0.0312	0.0119	0.0114	0.0445	0.0355	0.0137	0.0145	0.0156	UUBAR
	DFAC	0.005	-0.017	-0.027	-0.024	-0.003	-0.019	-0.055	-0.063	-0.076	DFAC
	EFFP	0.7628	0.8857	0.9566	0.9578	0.8356	0.8863	0.9655	0.9668	0.9679	EFFP
	INCID	5.4000	5.9200	6.2500	6.6000	7.0000	7.3200	7.4200	7.4200	7.4200	INCID
	DEVM	4.493	5.058	5.651	6.650	7.462	8.578	9.121	9.168	9.144	DEVM
	P 1	14.661	14.669	14.676	14.701	14.726	14.716	14.671	14.650	14.635	P 1
	P 2	14.635	14.656	14.671	14.696	14.706	14.701	14.666	14.691	14.630	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	UUBAR FS										UUBAR FS
	PI FS										PI FS
	LOSS PARA FS										LOSS PARA FS
ROTOR F	PCT SPAN	95.01	89.99	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA	16.721	16.943	17.164	17.828	18.713	19.598	20.262	20.483	20.705	DIA
ROTOR -L.E.	BETA 2	10.013	9.955	9.832	9.998	10.476	10.722	11.217	11.461	11.674	BETA 2
ROTOR -T.E.	BETA 3	50.102	52.882	49.057	43.153	41.471	41.256	43.736	45.100	46.866	BETA 3
	BETA(PR) 2	43.761	43.956	44.203	44.91	46.581	48.349	50.327	51.024	51.920	BETA(PR) 2
	BETA(PR) 3	-14.203	-8.617	-4.819	4.05	10.835	16.641	19.902	22.010	25.075	BETA(PR) 3
	V 2	309.34	311.43	314.41	320.8	323.79	323.00	314.13	310.41	305.06	V 2
	V 3	484.71	497.60	507.47	501.7	477.83	459.54	441.14	427.76	409.54	V 3
	VZ 2	304.62	306.74	309.78	315.85	317.74	316.04	306.34	302.29	296.69	VZ 2
	VZ 3	355.58	299.66	332.39	365.89	354.92	344.78	317.86	301.05	279.44	VZ 3
	V-THETA 2	53.78	53.84	53.69	55.68	58.75	59.84	60.75	61.29	61.30	V-THETA 2
	V-THETA 3	410.65	395.96	383.15	343.03	319.25	302.43	304.15	302.10	297.64	V-THETA 3
	V(PR) 2	421.8	426.1	432.1	446.7	462.7	476.4	481.0	481.9	482.4	V(PR) 2
	V(PR) 3	265.5	304.8	333.9	367.1	362.0	361.0	339.6	326.4	310.2	V(PR) 3
	VTHETA PR2	-291.7	-295.8	-301.3	-315.7	-335.8	-355.3	-369.3	-373.6	-378.7	VTHETA PR2
	VTHETA PR3	64.7	45.4	28.0	-25.6	-67.9	-103.1	-115.1	-121.7	-130.8	VTHETA PR3
	U 2	345.51	349.60	354.96	371.39	394.52	415.17	430.09	434.91	440.04	U 2
	U 3	345.96	350.55	355.13	368.86	387.14	405.49	419.22	423.80	428.39	U 3
	M 2	0.2792	0.2811	0.2839	0.2898	0.2925	0.2918	0.2836	0.2802	0.2753	M 2
	M 3	0.4336	0.4458	0.4554	0.4508	0.4289	0.4121	0.3949	0.3825	0.3658	M 3
	M(PR) 2	0.3807	0.3847	0.3902	0.4034	0.4180	0.4304	0.4343	0.4350	0.4354	M(PR) 2
	M(PR) 3	0.2375	0.2731	0.2996	0.3296	0.3249	0.3238	0.3040	0.2918	0.2771	M(PR) 3
	TURN(PR)	57.661	52.525	49.016	40.935	35.703	31.040	30.356	28.946	26.797	TURN(PR)
	UUBAR	0.3610	0.2245	0.1128	-0.0286	-0.0164	-0.0090	0.0513	0.0877	0.1317	UUBAR
	LOSS PARA	0.1127	0.0725	0.0373	-0.0099	-0.0059	-0.0033	0.0194	0.0331	0.0491	LOSS PARA
	DFAC	0.6432	0.5476	0.4802	0.4002	0.4215	0.4358	0.4933	0.5218	0.5543	DFAC
	EFFP	0.7341	0.8198	0.9090	1.0273	1.0116	1.0086	0.9426	0.8969	0.8449	EFFP
	EFF	0.7302	0.8170	0.9074	1.0275	1.0118	1.0087	0.9417	0.8954	0.8428	EFF
	INCID	-11.889	-10.444	-9.798	-8.848	-7.931	-7.224	-6.514	-6.712	-7.274	INCID
	DEVM	19.799	17.531	15.186	12.036	8.616	7.086	8.506	10.993	15.329	DEVM
	P 2	14.635	14.656	14.671	14.696	14.706	14.701	14.666	14.691	14.630	P 2
	P 3	16.191	16.362	16.503	16.569	16.463	16.398	16.302	16.211	16.085	P 3
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	T 3	539.500	539.000	538.250	536.300	535.500	535.000	535.600	535.700	535.600	T 3
STATOR F	PCT SPAN	95.81	92.01	86.21	69.91	49.21	29.51	14.11	9.31	4.51	PCT SPAN
	DIA	16.659	16.803	17.023	17.641	18.426	19.173	19.757	19.939	20.121	DIA
STATOR-L.E.	BETA 3	58.114	52.554	48.590	42.509	41.199	40.551	42.985	44.343	46.041	BETA 3
STATOR-T.E.	BETA 4	12.379	11.309	9.725	6.937	6.764	8.242	9.052	8.530	7.841	BETA 4
	V 3	483.74	499.80	511.14	508.10	484.97	467.51	448.63	434.93	416.23	V 3
	V 4	375.37	396.39	424.83	443.07	432.17	421.54	410.79	401.32	391.21	V 4
	VZ 3	299.52	303.39	338.05	374.46	364.51	354.45	327.19	310.04	287.94	VZ 3
	VZ 4	366.63	388.69	418.64	439.59	428.64	416.17	403.94	394.81	385.08	VZ 4
	V-THETA 3	410.74	396.15	383.31	343.24	319.09	303.27	304.95	303.01	298.59	V-THETA 3
	V-THETA 4	80.47	77.72	71.75	53.49	50.84	60.28	64.35	59.22	53.03	V-THETA 4
	M 3	0.4327	0.4471	0.4588	0.4569	0.4356	0.4195	0.4018	0.3891	0.3719	M 3
	M 4	0.3333	0.3526	0.3769	0.3964	0.3866	0.3770	0.3669	0.3582	0.3490	M 4
	TURN(PR)	45.735	41.244	38.860	35.557	34.389	32.221	33.810	35.675	38.048	TURN(PR)
	UUBAR	0.0515	0.0576	0.0272	0.0068	0.0250	0.0673	0.0939	0.0940	0.0722	UUBAR
	LOSS PARA	0.0161	0.0182	0.0088	0.0023	0.0089	0.0251	0.0362	0.0367	0.0285	LOSS PARA
	DFAC	0.4428	0.4130	0.3700	0.3244	0.3101	0.2972	0.2976	0.3025	0.2996	DFAC
	EFFP	0.8795	0.8554	0.9750	0.9738	0.8875	0.8645	0.4546	0.4042	0.4149	EFFP
	INCID	-6.886	-6.849	-7.217	-9.810	-11.455	-14.108	-14.677	-14.539	-14.362	INCID
	DEVM	17.629	17.307	15.523	11.684	10.856	12.272	13.013	11.686	10.390	DEVM
	P 3	16.191	16.362	16.503	16.569	16.463	16.398	16.302	16.211	16.085	P 3
	P 4	16.090	16.242	16.443	16.554	16.413	16.273	16.141	16.060	15.980	P 4
	T 3	539.500	539.000	538.250	536.300	535.500	535.000	535.600	535.700	535.600	T 3
	T 4	539.500	539.000	538.250	536.300	535.500	535.000	535.600	535.700	535.600	T 4

Table B-4. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 47.88 Equivalent Rotor Speed = 4757.37 Equivalent Weight Flow = 20.153 lb/sec
Uniform Inlet
U.S. Customary Units

INLET GUIDE VANE	PCT SPAN	95.79	91.71	86.89	70.41	49.21	29.10	13.80	9.00	4.70	PCT SPAN
	DIA	16.749	16.991	17.276	18.252	19.507	20.697	21.603	21.887	22.142	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	12.447	12.097	11.907	11.984	12.743	13.146	13.759	14.130	14.420	BETA 2
	V 1	208.13	209.32	213.42	221.16	223.68	215.88	202.09	196.79	192.89	V 1
	V 2	231.44	235.26	238.56	240.72	242.55	237.02	227.61	223.79	222.23	V 2
	VZ 1	208.13	209.31	213.40	221.08	223.45	215.49	201.58	196.25	192.32	VZ 1
	VZ 2	225.99	230.01	233.38	235.24	235.92	229.60	219.41	215.21	213.26	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	49.88	49.30	49.21	49.93	53.35	53.62	53.73	54.18	54.84	V-THETA 2
	M 1	0.1871	0.1881	0.1919	0.1989	0.2012	0.1941	0.1816	0.1768	0.1733	M 1
	M 2	0.2082	0.2117	0.2147	0.2166	0.2183	0.2133	0.2047	0.2013	0.1998	M 2
	TURN	-12.45	-12.10	-11.90	-11.97	-12.71	-13.08	-13.65	-14.01	-14.29	TURN
	UUBAR	0.0285	0.0141	0.0136	0.0104	0.0369	0.0264	0.0151	0.0160	0.0	UUBAR
	DFAC	-0.015	-0.029	-0.024	0.004	0.015	0.008	-0.010	-0.015	-0.023	DFAC
	EFFP	0.8936	0.9494	0.9495	0.7881	0.8286	0.8872	0.9471	0.9487	0.9998	EFFP
	INCID	5.9000	5.9200	5.9700	6.2500	6.6600	7.0000	7.3200	7.4200	7.4200	INCID
	DEVM	4.553	5.204	5.775	6.828	7.533	8.534	9.046	9.039	8.994	DEVM
	P 1	14.656	14.666	14.681	14.711	14.726	14.706	14.666	14.651	14.641	P 1
	P 2	14.646	14.661	14.676	14.691	14.711	14.696	14.661	14.646	14.641	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	UUBAR FS										UUBAR FS
	P1 FS										P1 FS
	LOSS PARA FS										LOSS PARA FS
ROTOR F	PCT SPAN	95.01	89.99	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA	16.721	16.943	17.164	17.828	18.713	19.598	20.262	20.483	20.705	DIA
ROTOR -L.E.	BETA 2	9.484	9.858	9.751	9.876	10.469	10.787	11.309	11.635	11.825	BETA 2
ROTOR -T.E.	BETA 3	60.773	56.379	52.706	46.232	45.741	45.511	47.478	48.983	51.961	BETA 3
	BETA(PR) 2	46.222	46.553	46.752	47.817	49.087	51.211	53.380	54.154	54.648	BETA(PR) 2
	BETA(PR) 3	-16.108	-10.091	-5.649	3.476	10.486	16.267	20.693	22.950	25.369	BETA(PR) 3
	V 2	288.58	289.55	292.61	296.18	301.33	296.77	286.39	281.99	280.53	V 2
	V 3	474.39	479.87	484.54	484.42	469.89	443.98	423.72	412.89	399.01	V 3
	VZ 2	284.21	285.28	288.37	291.65	295.71	290.31	279.20	274.47	272.69	VZ 2
	VZ 3	230.49	265.24	293.47	334.98	320.68	310.60	285.70	270.28	245.08	VZ 3
	V-THETA 2	50.03	49.57	49.56	50.77	54.56	55.31	55.84	56.41	57.04	V-THETA 2
	V-THETA 3	413.66	398.90	385.32	349.71	320.09	316.18	311.54	310.74	313.58	V-THETA 3
	V(PR) 2	410.8	414.8	420.9	434.4	452.0	464.7	469.1	469.8	472.4	V(PR) 2
	V(PR) 3	241.6	270.9	295.2	335.8	326.7	324.6	307.2	295.0	272.7	V(PR) 3
	VTHETA PR2	-296.6	-301.2	-306.6	-321.8	-341.2	-361.7	-375.7	-378.4	-384.4	VTHETA PR2
	VTHETA PR3	66.6	47.2	29.0	-20.4	-69.4	-90.6	-108.1	-114.4	-116.2	VTHETA PR3
	U 2	346.64	350.75	356.12	372.60	395.81	416.53	431.50	436.33	441.48	U 2
	U 3	347.09	351.70	356.29	370.07	388.44	406.81	420.60	425.19	429.76	U 3
	M 2	0.2602	0.2611	0.2639	0.2672	0.2719	0.2677	0.2582	0.2542	0.2529	M 2
	M 3	0.4239	0.4291	0.4336	0.4344	0.4118	0.3972	0.3785	0.3684	0.3557	M 3
	M(PR) 2	0.3704	0.3741	0.3796	0.3919	0.4078	0.4188	0.4229	0.4235	0.4258	M(PR) 2
	M(PR) 3	0.2159	0.2423	0.2643	0.3011	0.2928	0.2904	0.2744	0.2632	0.2431	M(PR) 3
	TURN(PR)	62.216	56.598	52.394	44.326	38.559	34.877	32.419	31.146	29.252	TURN(PR)
	UUBAR	0.3708	0.2718	0.1784	0.0116	0.0367	0.0387	0.0825	0.1127	0.1715	UUBAR
	LOSS PARA	0.1147	0.0874	0.0589	0.0040	0.0133	0.0144	0.0304	0.0422	0.0637	LOSS PARA
	DFAC	0.6972	0.6226	0.5632	0.4644	0.4471	0.5145	0.5600	0.5879	0.6417	DFAC
	EFFP	0.7443	0.7963	0.8648	0.9901	0.9596	0.9607	0.9184	0.8809	0.8264	EFFP
	EFF	0.7405	0.7961	0.8676	0.9896	0.9589	0.9601	0.9171	0.8791	0.8255	EFF
	INCID	-9.426	-7.847	-7.249	-6.018	-5.423	-4.354	-3.457	-3.576	-4.547	INCID
	DEVM	17.907	16.065	14.357	11.477	8.269	6.713	9.444	11.929	15.621	DEVM
	P 2	14.646	14.661	14.676	14.691	14.711	14.696	14.661	14.646	14.641	P 2
	P 3	16.265	16.365	16.461	16.577	16.476	16.441	16.340	16.279	16.189	P 3
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	T 3	540.000	539.500	538.750	537.100	536.500	536.300	536.500	536.750	537.000	T 3
STATOR F	PCT SPAN	95.81	92.01	86.21	69.91	49.21	29.51	14.11	9.31	4.51	PCT SPAN
	DIA	16.659	16.803	17.023	17.641	18.426	19.173	19.747	19.939	20.121	DIA
STATOR-L.E.	BETA 3	60.918	56.038	52.191	45.537	44.876	44.709	46.637	48.129	51.041	BETA 3
STATOR-T.E.	BETA 4	12.870	11.770	9.944	7.366	7.234	7.905	8.496	9.269	8.952	BETA 4
	V 3	473.45	481.19	487.95	490.45	466.64	441.57	430.80	419.72	405.47	V 3
	V 4	339.78	358.35	376.53	398.57	381.91	355.35	331.00	314.82	296.56	V 4
	VZ 3	230.13	268.81	298.10	343.42	330.39	320.32	299.00	279.35	254.01	VZ 3
	VZ 4	331.20	347.82	370.80	395.07	378.31	352.15	364.35	348.19	330.00	VZ 4
	V-THETA 3	413.76	399.09	385.48	349.92	328.53	317.06	312.36	311.66	314.59	V-THETA 3
	V-THETA 4	75.67	72.59	65.01	51.07	49.29	59.56	60.53	58.66	55.01	V-THETA 4
	M 3	0.4230	0.4304	0.4370	0.4400	0.4181	0.4042	0.3850	0.3747	0.3616	M 3
	M 4	0.3004	0.3152	0.3346	0.3552	0.3493	0.3438	0.3302	0.3246	0.3170	M 4
	TURN(PR)	48.048	44.248	42.242	38.156	37.596	36.715	37.021	38.728	42.064	TURN(PR)
	UUBAR	0.0508	0.0490	0.0299	0.0220	0.0189	0.0219	0.0626	0.0771	0.0849	UUBAR
	LOSS PARA	0.0159	0.0155	0.0097	0.0075	0.0068	0.0163	0.0318	0.0301	0.0256	LOSS PARA
	DFAC	0.5112	0.4820	0.4450	0.3971	0.3791	0.3639	0.3707	0.3731	0.3804	DFAC
	EFFP	0.9019	0.8965	0.9313	0.9400	0.9402	0.8701	0.8884	0.7814	0.7281	EFFP
	INCID	-4.083	-3.365	-3.616	-6.781	-7.774	-9.993	-11.026	-10.711	-9.317	INCID
	DEVM	18.120	17.788	15.742	12.112	11.324	12.883	13.454	12.411	11.175	DEVM
	P 3	16.265	16.365	16.461	16.577	16.476	16.441	16.340	16.279	16.189	P 3
	P 4	16.169	16.270	16.401	16.532	16.441	16.350	16.299	16.159	16.069	P 4
	T 3	540.000	539.500	538.750	537.100	536.500	536.300	536.500	536.750	537.000	T 3
	T 4	540.000	539.500	538.750	537.100	536.500	536.300	536.500	536.750	537.000	T 4

Table B-4. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 47.73 Equivalent Rotor Speed = 4742.92 Equivalent Weight Flow = 18.668 lb/sec
Uniform Inlet
U.S. Customary Units

INLET GUIDE VANE	PCT SPAN	95.79	91.71	86.89	70.41	49.21	29.10	13.80	5.00	4.70	PCT SPAN
	DIA	16.749	16.981	17.276	18.252	19.507	20.647	21.603	21.887	22.142	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	12.452	12.188	12.009	12.064	12.790	13.775	14.064	14.510	14.565	BETA 2
	V 1	196.01	197.50	198.71	201.90	196.17	193.54	184.69	180.62	180.50	V 1
	V 2	214.33	219.28	222.80	227.48	225.98	227.08	213.33	209.07	208.19	V 2
	VZ 1	196.00	197.49	198.69	201.83	197.97	193.18	184.23	180.13	179.98	VZ 1
	VZ 2	209.28	214.32	217.88	222.24	219.76	214.93	205.29	199.76	198.52	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	46.21	46.29	46.35	47.50	48.89	51.11	51.41	51.70	52.16	V-THETA 2
	M 1	0.1761	0.1775	0.1785	0.1814	0.1781	0.1739	0.1659	0.1622	0.1619	M 1
	M 2	0.1927	0.1972	0.2004	0.2046	0.2032	0.1947	0.1918	0.1878	0.1864	M 2
	TURN	-12.45	-12.19	-12.01	-12.05	-12.75	-13.50	-13.95	-14.38	-14.72	TURN
	UUBAR	0.1279	0.0944	0.0622	0.0301	0.0	0.0	0.0360	0.0753	0.0759	UUBAR
	DFAC	0.002	-0.016	-0.027	-0.030	-0.035	-0.035	-0.034	-0.034	-0.028	DFAC
	EFFP	0.6679	0.7142	0.8072	0.9007	0.9905	0.9907	0.9037	0.8716	0.8632	EFFP
	INCID	5.9000	5.9200	5.9700	6.2500	6.6600	7.0000	7.2200	7.4200	7.4200	INCID
	DEVM	4.548	5.114	5.674	6.748	7.487	8.306	8.754	9.663	9.554	DEVM
	P 1	14.680	14.690	14.695	14.710	14.705	14.700	14.680	14.669	14.658	P 1
	P 2	14.639	14.659	14.675	14.700	14.705	14.700	14.669	14.649	14.636	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	UUBAR FS										UUBAR FS
	P1 FS										P1 FS
	LOSS PARA FS										LOSS PARA FS
ROTOR F	PCT SPAN	95.01	89.99	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA	16.721	16.943	17.164	17.828	18.713	19.568	20.262	20.483	20.705	DIA
ROTOR -L.E.	BETA 2	10.006	9.947	9.849	9.656	10.515	10.993	11.569	11.946	12.210	BETA 2
ROTOR -T.E.	BETA 3	61.833	58.006	54.493	47.503	46.629	46.113	50.165	52.043	53.630	BETA 3
	BETA(PR) 2	48.720	48.797	48.922	49.589	51.332	53.185	54.274	54.276	54.960	BETA(PR) 2
	BETA(PR) 3	-16.037	-10.566	-5.998	3.418	10.574	16.657	20.207	21.962	24.299	BETA(PR) 3
	V 2	266.76	269.45	272.84	279.51	280.22	277.59	268.00	263.73	258.65	V 2
	V 3	464.72	468.72	471.87	474.58	463.20	437.73	418.69	409.68	400.50	V 3
	VZ 2	262.70	265.40	268.80	275.15	274.85	271.37	261.03	256.44	250.95	VZ 2
	VZ 3	218.99	247.95	273.97	320.50	310.90	302.94	267.62	251.14	236.82	VZ 3
	V-THETA 2	46.35	46.55	46.67	48.30	51.02	52.71	53.43	53.83	54.20	V-THETA 2
	V-THETA 3	408.49	396.88	383.99	349.81	329.22	314.04	320.89	322.42	321.67	V-THETA 3
	V(PR) 2	398.2	402.9	409.1	424.5	440.4	453.6	454.2	459.2	461.3	V(PR) 2
	V(PR) 3	229.5	253.6	275.8	321.3	316.4	317.2	286.5	272.2	261.3	V(PR) 3
	VTHETA PR2	-299.2	-303.1	-308.4	-323.2	-343.6	-362.6	-376.8	-381.2	-385.1	VTHETA PR2
	VTHETA PR3	63.0	46.3	28.8	-10.1	-58.0	-90.6	-68.5	-101.4	-106.4	VTHETA PR3
	U 2	345.58	349.68	355.04	371.47	364.61	415.26	430.18	435.61	440.14	U 2
	U 3	346.04	350.63	355.21	368.95	387.26	405.46	416.32	422.86	428.49	U 3
	M 2	0.2403	0.2428	0.2459	0.2519	0.2526	0.2502	0.2414	0.2317	0.2328	M 2
	M 3	0.4150	0.4186	0.4220	0.4251	0.4055	0.3914	0.3776	0.3652	0.3566	M 3
	M(PR) 2	0.3587	0.3630	0.3686	0.3827	0.3970	0.4088	0.4137	0.4136	0.4154	M(PR) 2
	M(PR) 3	0.2049	0.2266	0.2466	0.2878	0.2835	0.2857	0.2746	0.2627	0.2528	M(PR) 3
	TURN(PR)	64.643	59.305	54.912	46.158	40.715	36.464	35.011	34.236	32.616	TURN(PR)
	UUBAR	0.3784	0.2953	0.2120	0.0305	0.0332	0.0302	0.1151	0.1470	0.1722	UUBAR
	LOSS PARA	0.1171	0.0948	0.0699	0.0106	0.0120	0.0112	0.0434	0.0554	0.0646	LOSS PARA
	DFAC	0.7173	0.6551	0.5994	0.4883	0.5094	0.5205	0.6058	0.6407	0.6673	DFAC
	EFFP	0.7520	0.7942	0.8482	0.9706	0.9619	0.9675	0.8932	0.8657	0.8401	EFFP
	EFF	0.7482	0.7910	0.8457	0.9701	0.9606	0.9667	0.8916	0.8636	0.8376	EFF
	INCID	-6.930	-5.603	-5.080	-4.246	-3.178	-2.383	-1.549	-1.449	-2.229	INCID
	DEVM	17.977	15.592	14.009	11.416	8.357	7.102	8.810	10.965	14.556	DEVM
	P 2	14.639	14.659	14.675	14.700	14.705	14.700	14.669	14.649	14.636	P 2
	P 3	16.267	16.352	16.428	16.568	16.498	16.468	16.378	16.327	16.277	P 3
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	T 3	539.900	539.500	538.800	537.300	536.750	536.400	537.300	537.600	537.750	T 3
STATOR F	PCT SPAN	95.81	92.01	86.21	69.91	49.21	29.51	14.11	9.31	4.51	PCT SPAN
	DIA	16.659	16.803	17.023	17.641	18.426	19.173	19.757	19.939	20.121	DIA
STATOR-L.E.	BETA 3	61.889	57.659	53.953	46.778	45.753	45.297	49.246	51.136	52.665	BETA 3
STATOR-T.E.	BETA 4	12.405	11.917	11.077	9.175	9.123	10.220	10.546	10.508	10.443	BETA 4
	V 3	463.80	469.99	475.16	480.68	459.80	445.17	425.65	418.49	406.79	V 3
	V 4	307.05	322.50	338.93	367.16	360.34	355.57	345.39	338.63	331.26	V 4
	VZ 3	218.54	251.42	279.58	328.94	320.53	312.55	277.19	260.69	246.07	VZ 3
	VZ 4	299.87	315.52	332.55	362.27	355.35	349.09	338.12	331.24	323.72	VZ 4
	V-THETA 3	409.09	397.07	384.15	350.02	329.06	315.81	321.66	323.48	322.59	V-THETA 3
	V-THETA 4	65.96	66.59	65.11	58.51	57.07	62.94	62.95	61.44	59.67	V-THETA 4
	M 3	0.4141	0.4200	0.4251	0.4306	0.4117	0.3983	0.3800	0.3714	0.3625	M 3
	M 4	0.2715	0.2855	0.3005	0.3265	0.3205	0.3163	0.3068	0.3006	0.2939	M 4
	TURN(PR)	49.484	45.740	42.871	37.589	36.585	34.992	38.584	40.505	42.092	TURN(PR)
	UUBAR	0.0499	0.0457	0.0366	0.0253	0.0332	0.0589	0.0712	0.0745	0.0782	UUBAR
	LOSS PARA	0.0156	0.0144	0.0118	0.0086	0.0118	0.0219	0.0273	0.0289	0.0307	LOSS PARA
	DFAC	0.5750	0.5422	0.5082	0.4447	0.4316	0.4186	0.4301	0.4397	0.4481	DFAC
	EFFP	0.9165	0.9191	0.9303	0.9434	0.9195	0.8468	0.8029	0.7815	0.7592	EFFP
	INCID	-3.112	-1.744	-1.854	-5.541	-6.902	-9.362	-8.415	-7.741	-7.721	INCID
	DEVM	17.655	17.916	16.875	13.920	13.212	14.106	14.501	13.674	12.677	DEVM
	P 3	16.267	16.352	16.428	16.568	16.498	16.468	16.378	16.327	16.277	P 3
	P 4	16.177	16.267	16.357	16.518	16.438	16.368	16.267	16.217	16.167	P 4
	T 3	539.900	539.500	538.800	537.300	536.750	536.400	537.300	537.600	537.750	T 3
	T 4	539.900	539.500	538.800	537.300	536.750	536.400	537.300	537.600	537.750	T 4

Table B-4. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 47.88 Equivalent Rotor Speed = 4757.51 Equivalent Weight Flow = 17.035 lb/sec
Uniform Inlet
U.S. Customary Units

INLET GUIDE VANE	PCT SPAN	95.79	91.71	86.89	70.41	49.21	29.10	13.80	9.00	4.70	PCT SPAN
	DIA	16.749	16.991	17.276	18.252	19.507	20.697	21.603	21.887	22.142	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	12.262	11.998	11.776	11.982	12.642	12.969	13.765	14.255	14.641	BETA 2
	V 1	170.05	171.90	174.73	179.17	178.96	174.47	156.44	150.69	146.21	V 1
	V 2	190.58	193.87	196.74	202.96	204.22	201.75	193.29	190.46	187.61	V 2
	VZ 1	170.05	171.89	174.72	179.10	178.78	174.15	156.04	150.58	145.78	VZ 1
	VZ 2	186.23	189.62	192.55	198.35	198.71	195.58	186.32	183.07	179.66	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	40.47	40.30	40.14	42.09	44.57	45.04	45.64	46.51	46.99	V-THETA 2
	M 1	0.1527	0.1543	0.1569	0.1609	0.1607	0.1567	0.1404	0.1355	0.1312	M 1
	M 2	0.1712	0.1742	0.1768	0.1824	0.1835	0.1813	0.1736	0.1711	0.1685	M 2
	TURN	-12.26	-12.00	-11.77	-11.97	-12.61	-12.90	-13.66	-14.13	-14.50	TURN
	UUBAR	0.0425	0.0415	0.0402	0.0191	0.0191	0.0402	0.0	0.0	0.0	UUBAR
	DFAC	-0.025	-0.033	-0.033	-0.037	-0.037	-0.046	-0.108	-0.124	-0.137	DFAC
	EFFP	0.8583	0.8687	0.8708	0.9376	0.9410	0.8945	0.6999	0.6498	0.6996	EFFP
	INCID	5.9000	5.9200	5.9700	6.2500	6.6000	7.0000	7.3200	7.4200	7.4200	INCID
	DEVM	4.739	5.303	5.906	6.830	7.634	8.710	9.041	8.916	8.776	DEVM
	P 1	14.663	14.673	14.683	14.703	14.713	14.712	14.673	14.663	14.653	P 1
	P 2	14.653	14.663	14.673	14.698	14.708	14.703	14.673	14.663	14.653	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	UUBAR FS										UUBAR FS
	P1 FS										P1 FS
	LOSS PARA FS										LOSS PARA FS
ROTOR F	PCT SPAN	95.01	89.99	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA	16.721	16.943	17.164	17.828	18.713	19.598	20.262	20.483	20.705	DIA
ROTOR -L.E.	BETA 2	9.877	9.816	9.683	9.911	10.416	10.683	11.355	11.758	12.048	BETA 2
ROTOR -T.E.	BETA 3	63.722	60.270	56.945	48.359	48.105	47.736	51.942	55.209	58.338	BETA 3
	BETA(PR) 2	52.699	52.949	53.114	53.397	54.696	54.360	56.409	59.045	59.725	BETA(PR) 2
	BETA(PR) 3	-15.069	-9.849	-5.807	5.522	12.452	18.851	22.938	24.470	27.051	BETA(PR) 3
	V 2	236.67	237.69	240.36	248.81	252.69	251.65	242.33	239.17	235.97	V 2
	V 3	447.13	450.23	455.38	456.15	435.92	420.33	402.04	394.13	384.71	V 3
	VZ 2	233.16	234.21	236.92	244.97	248.01	246.26	236.20	232.67	229.19	VZ 2
	VZ 3	197.66	222.97	248.31	303.00	290.87	282.25	247.35	224.45	201.57	VZ 3
	V-THETA 2	40.59	40.52	40.42	42.80	45.60	46.46	47.44	48.43	48.92	V-THETA 2
	V-THETA 3	400.32	390.42	381.55	340.79	324.23	310.57	315.93	323.09	326.85	V-THETA 3
	V(PR) 2	384.7	388.7	394.7	410.9	429.5	445.1	461.6	463.1	455.4	V(PR) 2
	V(PR) 3	206.1	227.6	249.8	304.6	298.4	294.1	269.8	247.8	227.5	V(PR) 3
	VTHETA PR2	-306.1	-310.2	-315.7	-329.8	-350.2	-370.1	-384.1	-387.9	-392.6	VTHETA PR2
	VTHETA PR3	53.2	38.7	25.3	-29.3	-64.2	-96.2	-104.7	-102.1	-103.0	VTHETA PR3
	U 2	346.65	350.76	356.13	372.62	395.89	416.54	431.61	436.34	441.49	U 2
	U 3	347.10	351.71	356.30	370.09	388.45	406.83	420.61	425.70	429.81	U 3
	M 2	0.2129	0.2139	0.2183	0.2240	0.2275	0.2266	0.2181	0.2152	0.2123	M 2
	M 3	0.3088	0.4018	0.4066	0.4081	0.3896	0.3753	0.3583	0.3509	0.3421	M 3
	M(PR) 2	0.3462	0.3498	0.3552	0.3689	0.3866	0.4007	0.4065	0.4077	0.4067	M(PR) 2
	M(PR) 3	0.1839	0.2030	0.2231	0.2725	0.2667	0.2671	0.2404	0.2206	0.2024	M(PR) 3
	TURN(PR)	67.660	62.744	58.914	47.864	42.207	37.476	35.423	34.539	32.641	TURN(PR)
	UUBAR	0.3787	0.2938	0.2165	0.0036	0.0225	0.0254	0.1053	0.1582	0.2036	UUBAR
	LOSS PARA	0.1178	0.0946	0.0714	0.0014	0.0081	0.0095	0.0386	0.0554	0.0746	LOSS PARA
	DFAC	0.7656	0.7092	0.6537	0.5089	0.5403	0.5538	0.6373	0.6951	0.7468	DFAC
	EFFP	0.7696	0.8098	0.8566	0.9884	0.9736	0.9721	0.9083	0.8712	0.8271	EFFP
	EFF	0.7661	0.8068	0.8542	0.9882	0.9734	0.9716	0.9069	0.8691	0.8244	EFF
	INCID	-2.951	-1.451	-0.887	-0.437	0.189	0.796	1.584	1.328	0.564	INCID
	DEVM	18.939	16.306	14.159	13.518	10.231	9.769	11.431	13.443	17.305	DEVM
	P 2	14.653	14.663	14.673	14.698	14.708	14.703	14.673	14.663	14.653	P 2
	P 3	16.306	16.392	16.472	16.593	16.532	16.502	16.422	16.382	16.331	P 3
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	T 3	539.700	539.500	539.100	537.200	536.800	536.600	537.400	537.900	538.500	T 3
STATOR F	PCT SPAN	95.81	92.01	86.21	69.91	49.21	29.51	14.11	9.31	4.51	PCT SPAN
	DIA	16.659	16.803	17.023	17.641	18.426	19.177	19.757	19.936	20.171	DIA
STATOR-L.E.	BETA 3	63.802	59.914	56.366	47.626	47.186	46.888	50.977	54.161	57.208	BETA 3
STATOR-T.E.	BETA 4	16.930	16.162	14.733	12.102	11.263	11.691	12.116	12.074	11.946	BETA 4
	V 3	446.26	451.44	458.69	461.72	442.17	427.37	408.65	400.57	390.98	V 3
	V 4	280.09	293.31	313.67	339.25	332.34	325.50	316.20	311.09	307.32	V 4
	VZ 3	197.01	226.30	253.04	311.09	300.24	291.55	256.72	234.02	211.29	VZ 3
	VZ 4	267.94	281.68	303.30	331.54	325.56	317.77	307.65	303.53	299.75	VZ 4
	V-THETA 3	400.42	390.61	381.71	341.00	324.07	311.45	316.76	324.02	327.89	V-THETA 3
	V-THETA 4	81.56	81.64	79.76	71.09	66.83	66.54	66.09	66.93	63.71	V-THETA 4
	M 3	0.3980	0.4029	0.4095	0.4133	0.3954	0.3818	0.3643	0.3568	0.3473	M 3
	M 4	0.2474	0.2592	0.2777	0.3013	0.2957	0.2890	0.2804	0.2765	0.2726	M 4
	TURN(PR)	46.873	43.751	41.629	35.512	35.852	34.630	38.754	41.977	44.150	TURN(PR)
	UUBAR	0.0447	0.0522	0.0364	0.0273	0.0357	0.0436	0.0496	0.0516	0.0553	UUBAR
	LOSS PARA	0.0137	0.0162	0.0115	0.0041	0.0126	0.0235	0.0267	0.0253	0.0269	LOSS PARA
	DFAC	0.6013	0.5727	0.5332	0.4666	0.4619	0.4574	0.4701	0.4811	0.4951	DFAC
	EFFP	0.9304	0.9149	0.8958	0.9445	0.9220	0.8966	0.8745	0.8613	0.8451	EFFP
	INCID	-1.198	0.512	0.599	-4.693	-5.469	-7.771	-8.682	-8.711	-8.419	INCID
	DEVM	22.179	22.161	20.530	16.846	15.349	15.849	16.064	16.211	16.170	DEVM
	P 3	16.306	16.392	16.472	16.593	16.532	16.502	16.422	16.382	16.331	P 3
	P 4	16.231	16.301	16.407	16.542	16.472	16.402	16.321	16.281	16.231	P 4
	T 3	539.700	539.500	539.100	537.200	536.800	536.600	537.400	537.900	538.500	T 3
	T 4	539.700	539.500	539.100	537.200	536.800	536.600	537.400	537.900	538.500	T 4

Table B-4. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 47.58 Equivalent Rotor Speed = 4727.50 Equivalent Weight Flow = 15.249 lb/sec
Uniform Inlet
U.S. Customary Units

INLET GUIDE VANE	PCT SPAN	95.79	91.71	86.89	70.41	49.21	29.10	13.80	9.00	4.70	PCT SPAN
	DIA	16.749	16.991	17.276	18.252	19.507	20.697	21.603	21.887	22.142	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	12.533	12.162	11.897	11.793	12.739	13.355	13.248	13.671	14.606	BETA 2
	V 1	144.73	147.78	151.92	159.11	161.43	153.66	141.91	132.44	129.83	V 1
	V 2	163.52	167.19	170.15	174.13	174.22	171.10	162.51	155.60	153.80	V 2
	VZ 1	144.73	147.78	151.91	159.05	161.26	153.38	141.55	132.08	129.45	VZ 1
	VZ 2	159.62	163.42	166.46	170.28	169.46	165.69	156.96	149.93	147.47	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	35.48	35.22	35.07	35.55	38.31	39.31	36.96	36.47	38.43	V-THETA 2
	M 1	0.1299	0.1326	0.1363	0.1428	0.1449	0.1373	0.1273	0.1186	0.1164	M 1
	M 2	0.1466	0.1501	0.1528	0.1563	0.1564	0.1536	0.1459	0.1396	0.1380	M 2
	TURN	-12.53	-12.16	-11.89	-11.76	-12.70	-13.28	-13.15	-13.56	-14.47	TURN
	UUBAR	0.0	0.0	0.0	0.0242	0.0469	0.0	0.0	0.0	0.0	UUBAR
	DFAC	-0.031	-0.035	-0.026	-0.003	0.020	-0.004	-0.032	-0.052	-0.050	DFAC
	EFFP	0.9994	0.9996	0.9997	0.8916	0.7802	0.9998	0.9996	0.9996	0.9994	EFFP
	INCID	5.4000	5.4200	5.4700	6.2500	6.8600	7.0000	7.3200	7.4200	7.4200	INCID
	DEVM	4.467	5.139	5.785	7.019	7.537	8.326	9.554	9.495	8.810	DEVM
	P 1	14.686	14.676	14.686	14.707	14.717	14.701	14.676	14.656	14.651	P 1
	P 2	14.686	14.676	14.686	14.701	14.707	14.701	14.676	14.656	14.651	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	UUBAR FS										UUBAR FS
	P1 FS										PI FS
	LOSS PARA FS										LOSS PARA FS
ROTOR F	PCT SPAN	95.01	89.99	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA	16.721	16.943	17.164	17.828	18.713	19.598	20.262	20.483	20.705	DIA
ROTOR -L.E.	BETA 2	10.117	9.970	9.802	9.778	10.524	11.029	10.961	11.313	12.054	BETA 2
ROTOR -T.E.	BETA 3	65.683	62.129	58.624	49.855	50.016	51.128	56.326	58.386	60.125	BETA 3
	BETA(PR) 2	57.145	57.244	57.314	57.879	59.216	60.872	63.067	64.368	64.830	BETA(PR) 2
	BETA(PR) 3	-18.520	-12.756	-8.209	3.621	11.277	18.116	21.316	22.610	24.026	BETA(PR) 3
	V 2	202.63	204.55	207.45	212.96	215.03	213.85	203.20	194.62	192.91	V 2
	V 3	446.58	449.69	455.13	456.84	431.91	411.44	399.24	395.55	390.53	V 3
	VZ 2	199.48	201.46	204.41	209.76	210.97	208.05	198.33	189.82	187.36	VZ 2
	VZ 3	183.66	209.96	236.90	294.45	277.34	257.86	221.01	207.01	194.21	VZ 3
	V-THETA 2	35.59	35.41	35.32	36.15	39.19	40.55	38.41	37.97	40.01	V-THETA 2
	V-THETA 3	406.43	397.03	388.47	349.12	330.70	319.90	331.72	336.30	338.07	V-THETA 3
	V(PR) 2	367.7	372.3	378.5	394.6	412.4	427.9	438.4	439.3	441.1	V(PR) 2
	V(PR) 3	195.0	216.4	239.6	295.2	285.3	272.2	238.3	225.4	214.8	V(PR) 3
	VTHETA PR2	-308.9	-313.1	-318.6	-334.1	-354.1	-373.4	-390.4	-395.8	-398.7	VTHETA PR2
	VTHETA PR3	61.5	47.5	34.4	-18.6	-55.3	-84.4	-86.2	-86.2	-89.0	VTHETA PR3
	U 2	344.46	346.54	353.89	370.27	393.33	413.91	428.79	433.59	438.71	U 2
	U 3	344.91	349.49	354.05	367.75	386.00	404.26	417.98	422.52	427.09	U 3
	M 2	0.1821	0.1838	0.1865	0.1914	0.1933	0.1913	0.1826	0.1750	0.1733	M 2
	M 3	0.3982	0.4011	0.4062	0.4085	0.3857	0.3669	0.3552	0.3517	0.3470	M 3
	M(PR) 2	0.3304	0.3346	0.3402	0.3547	0.3708	0.3846	0.3940	0.3947	0.3963	M(PR) 2
	M(PR) 3	0.1739	0.1931	0.2139	0.2640	0.2529	0.2427	0.2120	0.2004	0.1909	M(PR) 3
	TURN(PR)	75.534	69.930	65.569	54.247	47.904	42.710	41.712	41.729	40.190	TURN(PR)
	UUBAR	0.4259	0.3355	0.2531	0.0238	0.0557	0.0921	0.1900	0.2149	0.2310	UUBAR
	LOSS PARA	0.1301	0.1069	0.0831	0.0082	0.0200	0.0339	0.0711	0.0806	0.0863	LOSS PARA
	DFAC	0.7947	0.7365	0.6764	0.5255	0.5694	0.6126	0.7208	0.7585	0.7862	DFAC
	EFFP	0.7724	0.8118	0.8536	0.9866	0.9582	0.9290	0.8562	0.8437	0.8298	EFFP
	EFF	0.7688	0.8087	0.8511	0.9863	0.9574	0.9279	0.8538	0.8411	0.8270	EFF
	INCID	1.495	2.844	3.312	4.045	4.712	5.317	6.257	6.670	5.671	INCID
	DEVM	15.510	13.413	11.743	11.618	9.058	8.557	9.915	11.590	14.881	DEVM
	P 2	14.686	14.676	14.686	14.701	14.707	14.701	14.676	14.656	14.651	P 2
	P 3	16.360	16.446	16.526	16.657	16.561	16.496	16.466	16.461	16.446	P 3
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	T 3	540.100	539.900	539.600	537.800	537.400	537.400	539.000	539.500	539.750	T 3
STATOR F	PCT SPAN	95.81	92.01	86.21	69.91	49.21	29.51	14.11	9.31	4.51	PCT SPAN
	DIA	16.659	16.803	17.023	17.641	18.426	19.173	19.757	19.939	20.121	DIA
STATOR-L.E.	BETA 3	65.796	61.761	58.009	49.082	49.038	50.183	55.199	57.206	58.905	BETA 3
STATOR-T.E.	BETA 4	19.025	18.278	17.022	14.021	13.073	13.325	13.412	13.324	13.255	BETA 4
	V 3	445.72	450.89	458.25	462.42	438.09	418.29	405.79	402.01	396.81	V 3
	V 4	249.02	263.94	285.17	313.25	304.43	295.26	299.00	299.90	298.47	V 4
	VZ 3	182.74	213.33	242.76	302.79	286.96	267.43	231.16	217.33	204.55	VZ 3
	VZ 4	235.40	250.66	272.63	303.76	296.19	286.63	289.64	290.35	288.73	VZ 4
	V-THETA 3	406.53	397.21	388.62	349.33	330.54	320.78	332.59	337.31	339.15	V-THETA 3
	V-THETA 4	81.17	82.77	83.46	75.85	68.78	67.89	69.06	68.77	68.01	V-THETA 4
	M 3	0.3974	0.4022	0.4091	0.4137	0.3914	0.3732	0.3612	0.3576	0.3527	M 3
	M 4	0.2196	0.2330	0.2520	0.2777	0.2698	0.2616	0.2646	0.2652	0.2639	M 4
	TURN(PR)	46.772	43.482	40.984	35.050	35.925	36.782	41.691	43.784	45.555	TURN(PR)
	UUBAR	0.0864	0.0927	0.0782	0.0706	0.0636	0.0731	0.0567	0.0542	0.0519	UUBAR
	LOSS PARA	0.0261	0.0265	0.0245	0.0234	0.0223	0.0268	0.0215	0.0208	0.0201	LOSS PARA
	DFAC	0.6752	0.6413	0.5975	0.5264	0.5227	0.5255	0.5213	0.5225	0.5254	DFAC
	EFFP	0.8810	0.8665	0.8797	0.8774	0.8838	0.8616	0.8820	0.8837	0.8861	EFFP
	INCID	0.796	2.359	2.202	-3.236	-3.617	-4.475	-2.454	-1.660	-1.474	INCID
	DEVM	24.274	24.278	22.819	18.764	17.158	17.293	17.355	16.456	15.471	DEVM
	P 3	16.360	16.446	16.526	16.657	16.561	16.496	16.466	16.461	16.446	P 3
	P 4	15.214	16.265	16.385	16.526	16.456	16.385	16.385	16.385	16.375	P 4
	T 3	540.100	539.900	539.600	537.800	537.400	537.400	539.000	539.500	539.750	T 3
	T 4	540.100	539.900	539.600	537.800	537.400	537.400	539.000	539.500	539.750	T 4

Table B-5. Overall Performance of Stage F Radial Distortion

(IGV Inlet) Equivalent Weight Flow kg/sec	lb/sec	Rotor $\overline{P}_3/\overline{P}_2$	Rotor η_{ad}	Rotor η_p	Rotor - Stator $\overline{P}_4/\overline{P}_2$	Rotor - Stator η_{ad}	Rotor - Stator η_p	IGV - Rotor - Stator P_4/P_1	IGV - Rotor - Stator η_{ad}	IGV - Rotor - Stator η_p
				HUB RADIAL DISTORTION						
				100% Design Equivalent Rotor Speed						
17.79	39.21	1.476	0.795	0.806	1.427	0.718	0.732	1.425	0.715	0.729
16.02	35.32	1.573	0.875	0.883	1.538	0.826	0.837	1.532	0.819	0.829
14.98	33.06	1.600	0.880	0.887	1.547	0.813	0.824	1.542	0.806	0.818
				85% Design Equivalent Rotor Speed						
16.24	35.80	1.363	0.889	0.894	1.333	0.817	0.824	1.318	0.784	0.791
13.93	30.71	1.402	0.896	0.901	1.381	0.852	0.858	1.376	0.841	0.848
12.21	26.92	1.415	0.876	0.882	1.379	0.807	0.816	1.372	0.793	0.802
				70% Design Equivalent Rotor Speed						
13.95	30.75	1.245	0.902	0.905	1.227	0.839	0.844	1.218	0.808	0.813
11.54	25.44	1.263	0.909	0.912	1.251	0.866	0.870	1.246	0.849	0.854
9.97	21.99	1.270	0.883	0.887	1.250	0.819	0.825	1.244	0.802	0.808
				TIP RADIAL DISTORTION						
				100% Design Equivalent Rotor Speed						
17.91	39.48	1.500	0.815	0.825	1.447	0.738	0.751	1.434	0.719	0.733
16.41	36.17	1.606	0.903	0.909	1.566	0.850	0.859	1.553	0.833	0.843
15.52	34.21	1.614	0.894	0.901	1.560	0.827	0.837	1.546	0.810	0.821
				85% Design Equivalent Rotor Speed						
16.54	36.46	1.385	0.908	0.912	1.348	0.829	0.836	1.339	0.809	0.817
14.37	31.68	1.416	0.922	0.926	1.393	0.876	0.881	1.386	0.861	0.867
13.15	28.99	1.414	0.895	0.900	1.387	0.839	0.847	1.383	0.832	0.839
				70% Design Equivalent Rotor Speed						
14.23	31.38	1.264	0.938	0.940	1.245	0.875	0.879	1.239	0.855	0.859
11.96	26.36	1.275	0.933	0.935	1.260	0.883	0.887	1.256	0.870	0.874
10.82	23.85	1.271	0.888	0.892	1.254	0.835	0.840	1.252	0.829	0.834

Table B-6. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 99.52 Equivalent Rotor Speed = 9888.25 Equivalent Weight Flow = 17.785 kg/sec
Hub Radial Distortion
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	95.79	91.71	86.89	70.41	49.21	29.10	13.80	9.00	4.70	PCT SPAN
	DIA	0.425	0.432	0.439	0.464	0.495	0.526	0.549	0.556	0.562	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	15.806	15.274	14.528	12.932	13.067	13.562	14.465	16.344	17.188	BETA 2
	V 1	79.19	84.57	92.20	118.42	153.46	178.14	174.65	166.98	160.19	V 1
	V 2	105.77	110.31	114.69	134.84	161.08	178.08	175.01	169.96	165.82	V 2
	VZ 1	79.19	84.57	92.19	118.38	153.30	177.81	174.22	166.52	159.72	VZ 1
	VZ 2	101.77	106.41	110.99	131.29	156.47	172.21	168.20	161.77	157.01	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	28.81	29.06	29.76	30.15	36.32	41.54	43.39	47.44	48.56	V-THETA 2
	M 1	0.2340	0.2501	0.2730	0.3523	0.4604	0.5384	0.5273	0.5029	0.4815	M 1
	M 2	0.3139	0.3276	0.3409	0.4026	0.4843	0.5383	0.5285	0.5124	0.4993	M 2
	TURN	-15.81	-15.27	-14.52	-12.92	-13.03	-13.49	-14.35	-16.21	-17.03	TURN
	UUBAR	0.0115	0.0	0.0337	-0.0100	-0.0227	0.0040	0.0397	0.0415	0.0379	UUBAR
	DFAC	-0.189	-0.166	-0.117	-0.033	0.051	0.103	0.110	0.113	0.107	DFAC
	EFFP	0.9858	0.9999	0.9439	1.0327	1.2538	-0.2324	0.1044	0.4917	0.6761	EFFP
	INCID	5.9000	5.9200	5.9700	6.2500	6.6600	7.0000	7.3200	7.4200	7.4200	INCID
	DEVM	1.194	2.027	3.155	5.881	7.210	8.120	8.345	6.843	6.250	DEVM
	P 1	8.914	8.975	9.060	9.406	10.037	10.669	10.680	10.522	10.392	P 1
	P 2	8.910	8.975	9.044	9.414	10.068	10.661	10.607	10.453	10.334	P 2
	T 1	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 1
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	UUBAR FS										UUBAR FS
	P1 FS										P1 FS
	LOSS PARA FS										LOSS PARA FS
ROTOR F	PCT SPAN	95.01	89.99	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA	0.425	0.430	0.436	0.453	0.475	0.498	0.515	0.520	0.526	DIA
ROTOR -L.E.	BETA 2	12.423	12.184	11.624	10.226	9.818	9.442	10.161	11.728	12.476	BETA 2
ROTOR -T.E.	BETA 3	69.062	63.382	59.457	50.383	47.766	48.489	51.553	53.267	54.372	BETA 3
	BETA(PR) 2	55.479	54.961	54.396	50.401	44.857	40.625	42.216	43.658	45.075	BETA(PR) 2
	BETA(PR) 3	-23.916	-13.519	-7.568	4.317	12.286	18.630	21.180	22.257	23.868	BETA(PR) 3
	V 2	134.32	138.45	143.76	172.75	218.32	262.30	257.12	244.55	235.66	V 2
	V 3	283.83	283.70	284.46	286.54	277.73	265.49	260.77	258.02	254.86	V 3
	VZ 2	131.18	135.33	140.81	169.92	214.67	257.66	251.61	237.63	226.52	VZ 2
	VZ 3	101.33	126.96	144.52	182.66	186.53	175.69	161.78	153.99	148.13	VZ 3
	V-THETA 2	28.90	29.22	28.96	30.65	37.15	42.85	45.09	49.39	50.56	V-THETA 2
	V-THETA 3	264.83	253.34	244.92	220.66	205.47	198.50	203.77	206.35	206.68	V-THETA 3
	V(PR) 2	231.5	235.7	241.9	266.6	303.2	340.3	340.9	330.0	324.8	V(PR) 2
	V(PR) 3	111.6	131.3	145.9	183.3	191.2	186.0	174.3	167.2	162.9	V(PR) 3
	VTHETA PR2	-190.7	-193.0	-196.7	-205.4	-213.6	-221.0	-228.3	-227.0	-229.1	VTHETA PR2
	VTHETA PR3	44.9	30.5	19.2	-13.8	-40.6	-59.2	-62.7	-63.0	-65.6	VTHETA PR3
	U 2	219.61	222.21	225.62	236.06	250.76	263.88	273.37	276.43	279.69	U 2
	U 3	219.89	222.81	225.72	234.45	246.09	257.73	266.46	269.37	272.29	U 3
	M 2	0.4010	0.4138	0.4302	0.5213	0.6647	0.8211	0.8028	0.7589	0.7283	M 2
	M 3	0.8174	0.8187	0.8238	0.8271	0.8120	0.7736	0.7560	0.7471	0.7368	M 3
	M(PR) 2	0.6910	0.7044	0.7238	0.8045	0.9300	1.0654	1.0643	1.0241	1.0037	M(PR) 2
	M(PR) 3	0.3213	0.3788	0.4227	0.5366	0.5598	0.5421	0.5054	0.4842	0.4709	M(PR) 3
	TURN(PR)	79.235	68.406	61.955	46.072	32.531	21.934	20.564	21.330	21.123	TURN(PR)
	UUBAR	0.4895	0.3639	0.2646	0.0620	0.1156	0.2049	0.2387	0.2308	0.2301	UUBAR
	LOSS PARA	0.1441	0.1156	0.0870	0.0218	0.0415	0.0751	0.0894	0.0868	0.0865	LOSS PARA
	DFAC	0.8468	0.7542	0.6928	0.5584	0.5702	0.6272	0.6719	0.6825	0.6917	DFAC
	EFFP	0.7464	0.7895	0.8465	0.9660	0.9001	0.7470	0.7224	0.7418	0.7512	EFFP
	EFF	0.7305	0.7758	0.8362	0.9529	0.8941	0.7347	0.7097	0.7287	0.7383	EFF
	INCID	-0.171	0.561	0.395	-3.434	-8.654	-14.647	-14.627	-14.082	-14.130	INCID
	DEVM	10.144	12.654	12.440	12.314	10.065	9.069	9.779	11.238	14.146	DEVM
	P 2	8.910	8.975	9.044	9.414	10.068	10.661	10.607	10.453	10.334	P 2
	P 3	13.740	14.048	14.375	15.187	15.249	14.956	14.918	14.856	14.771	P 3
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	T 3	340.139	338.889	336.944	332.444	328.750	328.000	329.778	329.944	330.111	T 3
STATOR F	PCT SPAN	95.81	92.01	86.21	69.91	49.21	29.11	14.11	9.31	4.51	PCT SPAN
	DIA	0.423	0.427	0.432	0.448	0.468	0.487	0.502	0.506	0.511	DIA
STATOR-L.E.	BETA 3	69.687	62.539	57.749	47.916	44.376	44.315	49.340	51.033	52.190	BETA 3
STATOR-T.E.	BETA 4	5.185	5.661	6.389	6.961	6.360	7.066	8.851	9.283	9.567	BETA 4
	V 3	282.46	285.65	289.74	287.60	288.82	275.76	269.88	266.88	263.41	V 3
	V 4	225.22	232.52	244.27	265.57	270.93	266.58	268.36	266.60	262.66	V 4
	VZ 3	98.06	131.72	154.60	199.39	202.69	190.11	175.40	167.40	160.89	VZ 3
	VZ 4	224.29	231.36	242.70	263.47	268.94	263.91	266.02	261.74	257.41	VZ 4
	V-THETA 3	264.90	253.46	245.02	220.60	205.37	199.05	204.31	206.96	207.35	V-THETA 3
	V-THETA 4	20.35	22.93	27.18	32.17	29.98	32.71	41.11	47.78	49.11	V-THETA 4
	M 3	0.8129	0.8251	0.8413	0.8747	0.8501	0.8076	0.7861	0.7757	0.7635	M 3
	M 4	0.6331	0.6567	0.6952	0.7683	0.7906	0.7774	0.7808	0.7749	0.7614	M 4
	TURN(PR)	64.502	56.876	51.355	40.641	38.060	39.158	40.366	41.621	42.547	TURN(PR)
	UUBAR	0.1033	0.1065	0.0859	0.0788	0.0737	0.0844	0.0940	0.0963	0.1123	UUBAR
	LOSS PARA	0.0329	0.0342	0.0280	0.0268	0.0264	0.0353	0.0363	0.0375	0.0442	LOSS PARA
	DFAC	0.4709	0.4479	0.4048	0.3258	0.2828	0.2638	0.2462	0.2485	0.2555	DFAC
	EFFP	0.7746	0.7512	0.7694	0.7073	0.5324	-0.1247	-5.1736	-37.8020	-23.0092	EFFP
	INCID	4.687	3.137	1.942	-4.403	-7.279	-0.344	-8.321	-7.845	-8.207	INCID
	DEVM	10.434	11.661	12.188	11.707	10.459	11.048	12.613	12.434	11.747	DEVM
	P 3	13.740	14.048	14.375	15.187	15.249	14.956	14.918	14.856	14.771	P 3
	P 4	13.240	13.509	13.917	14.717	14.829	14.463	14.448	14.356	14.240	P 4
	T 3	340.139	338.889	336.944	332.444	328.750	328.000	329.778	329.944	330.111	T 3
	T 4	340.139	338.889	336.944	332.444	328.750	328.000	329.778	329.944	330.111	T 4

Table B-6. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 99.56 Equivalent Rotor Speed = 9892.77 Equivalent Weight Flow = 16.020 kg/sec
Hub Radial Distortion
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	95.79	91.71	86.69	70.41	49.21	29.10	13.80	9.00	4.70	PCT SPAN
	DIA	0.425	0.432	0.439	0.464	0.495	0.526	0.549	0.558	0.566	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	16.019	15.417	14.580	12.621	12.560	13.128	14.283	15.299	16.763	BETA 2
	V 1	72.04	73.46	76.84	102.77	137.87	153.81	153.49	148.38	140.12	V 1
	V 2	91.41	93.80	97.18	117.45	140.72	155.06	153.56	149.01	145.78	V 2
	VZ 1	72.04	73.45	76.84	102.73	137.73	153.53	153.10	148.99	139.71	VZ 1
	VZ 2	87.86	90.42	94.03	114.50	136.97	150.21	147.70	142.55	136.33	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	25.22	24.93	24.46	25.64	30.52	35.03	37.60	38.49	41.68	V-THETA 2
	M 1	0.2127	0.2169	0.2270	0.3048	0.4120	0.4615	0.4605	0.4384	0.4169	M 1
	M 2	0.2706	0.2778	0.2879	0.3493	0.4208	0.4654	0.4607	0.4465	0.4365	M 2
	TURN	-16.02	-15.42	-14.58	-12.41	-12.52	-13.06	-14.17	-15.17	-16.61	TURN
	UUBAR	0.0784	0.0502	0.0228	-0.0250	0.0469	0.0157	0.0825	0.0580	0.0367	UUBAR
	DFAC	-0.128	-0.140	-0.135	-0.039	0.074	0.092	0.110	0.105	0.099	DFAC
	EFFP	0.8881	0.9279	0.9641	1.0847	0.4895	0.5318	0.0177	0.4034	0.6993	EFFP
	INCID	5.9000	5.9200	5.9700	6.2500	6.6600	7.0000	7.3200	7.4200	7.4200	INCID
	DEVM	0.982	1.885	3.103	6.191	7.715	8.551	8.526	7.880	6.867	DEVM
	P 1	9.223	9.246	9.283	9.575	10.178	10.494	10.554	10.427	10.322	P 1
	P 2	9.201	9.231	9.276	9.590	10.075	10.472	10.464	10.352	10.277	P 2
	T 1	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 1
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	UUBAR FS										UUBAR FS
	P1 FS										P1 FS
	LOSS PARA FS										LOSS PARA FS
ROTOR F	PCT SPAN	95.01	89.99	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA	0.425	0.430	0.436	0.453	0.475	0.498	0.515	0.520	0.526	DIA
ROTOR -L.E.	BETA 2	12.702	12.422	11.798	10.149	9.797	9.941	10.815	11.671	12.815	BETA 2
ROTOR -T.E.	BETA 3	70.390	68.287	65.622	55.210	52.251	52.981	56.191	58.086	60.563	BETA 3
	BETA(PR) 2	59.998	60.010	59.613	55.271	50.542	47.862	48.888	50.203	51.103	BETA(PR) 2
	BETA(PR) 3	-27.616	-20.599	-13.745	2.685	12.926	19.390	22.691	24.240	26.176	BETA(PR) 3
	V 2	115.06	116.56	120.47	148.02	183.86	210.14	209.50	201.99	196.57	V 2
	V 3	287.29	282.39	278.88	276.66	264.56	255.53	251.06	248.36	245.28	V 3
	VZ 2	112.25	113.83	117.92	145.63	180.80	206.17	204.58	196.57	190.75	VZ 2
	VZ 3	96.33	104.39	115.09	157.82	161.86	153.66	139.47	131.08	120.58	VZ 3
	V-THETA 2	25.30	25.07	24.63	26.07	31.22	36.14	39.08	40.60	43.59	V-THETA 2
	V-THETA 3	270.39	262.15	253.97	227.16	209.05	203.77	208.27	210.47	213.14	V-THETA 3
	V(PR) 2	224.5	227.7	233.1	255.7	284.7	307.9	311.9	307.4	304.6	V(PR) 2
	V(PR) 3	109.4	112.1	116.6	158.1	166.3	163.4	151.8	144.5	135.1	V(PR) 3
	VTHETA PR2	-194.4	-197.2	-201.1	-210.1	-219.7	-227.9	-234.4	-236.0	-236.4	VTHETA PR2
	VTHETA PR3	50.4	39.2	28.2	-7.4	-37.1	-54.1	-58.3	-59.0	-59.3	VTHETA PR3
	U 2	219.71	222.31	225.72	236.16	250.87	264.00	273.49	276.56	279.42	U 2
	U 3	219.99	222.92	225.82	234.56	244.20	257.85	266.58	269.49	272.41	U 3
	M 2	0.3421	0.3466	0.3585	0.4435	0.5568	0.6427	0.6404	0.6157	0.5992	M 2
	M 3	0.8259	0.8111	0.8015	0.8007	0.7665	0.7380	0.7216	0.7124	0.7020	M 3
	M(PR) 2	0.6673	0.6772	0.6938	0.7660	0.8623	0.9414	0.9535	0.9386	0.9268	M(PR) 2
	M(PR) 3	0.3144	0.3219	0.3408	0.4576	0.4619	0.4719	0.4364	0.4144	0.4864	M(PR) 3
	TURN(PR)	87.438	80.503	73.342	52.573	37.577	28.411	26.131	25.904	24.877	TURN(PR)
	UUBAR	0.3281	0.2771	0.2209	0.0389	0.0780	0.1459	0.1791	0.1827	0.1887	UUBAR
	LOSS PARA	0.0936	0.0847	0.0712	0.0135	0.0279	0.0532	0.0664	0.0677	0.0696	LOSS PARA
	DFAC	0.8647	0.8485	0.8176	0.6531	0.6421	0.6763	0.7270	0.7508	0.7811	DFAC
	EFFP	0.8468	0.8613	0.8863	0.9741	0.9443	0.8649	0.8359	0.8401	0.8364	EFFP
	EFF	0.8354	0.8510	0.8778	0.9721	0.9406	0.8567	0.8259	0.8302	0.8262	EFF
	INCID	4.348	5.610	5.612	1.437	-3.969	-7.711	-7.954	-7.533	-8.098	INCID
	DEVM	6.461	5.608	6.269	10.684	10.705	9.828	11.285	13.213	16.425	DEVM
	P 2	9.201	9.231	9.276	9.590	10.075	10.472	10.464	10.352	10.277	P 2
	P 3	15.307	15.378	15.494	16.051	15.973	15.905	15.920	15.861	15.793	P 3
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	T 3	342.167	341.333	340.000	335.167	331.278	330.833	332.611	333.167	333.722	T 3
STATOR F	PCT SPAN	95.81	92.01	86.21	69.91	49.21	28.51	14.11	9.31	4.51	PCT SPAN
	DIA	0.423	0.427	0.432	0.448	0.468	0.487	0.502	0.506	0.511	DIA
STATOR-L.E.	BETA 3	71.116	67.318	63.671	52.900	50.039	50.811	53.916	55.759	58.096	BETA 3
STATOR-T.E.	BETA 4	10.404	10.381	10.315	10.861	10.165	10.527	10.950	11.049	11.140	BETA 4
	V 3	285.84	284.27	283.50	285.05	272.83	264.03	258.89	255.88	252.37	V 3
	V 4	160.22	161.29	166.67	185.41	190.03	189.28	190.79	190.94	190.86	V 4
	VZ 3	92.51	109.62	125.74	171.91	175.09	166.58	152.18	143.68	133.11	VZ 3
	VZ 4	157.58	158.63	163.94	181.99	186.83	185.65	186.52	186.44	186.09	VZ 4
	V-THETA 3	270.46	262.28	254.08	227.30	208.95	204.33	208.81	211.10	213.82	V-THETA 3
	V-THETA 4	28.93	29.06	29.84	34.92	33.50	34.50	36.09	36.41	36.64	V-THETA 4
	M 3	0.8212	0.8172	0.8165	0.8283	0.7934	0.7654	0.7466	0.7362	0.7244	M 3
	M 4	0.4404	0.4440	0.4604	0.5186	0.5356	0.5337	0.5367	0.5366	0.5359	M 4
	TURN(PR)	60.712	56.936	53.352	42.026	39.832	40.202	42.859	44.598	46.865	TURN(PR)
	UUBAR	0.0682	0.0746	0.0721	0.0700	0.0475	0.0643	0.0797	0.0701	0.0594	UUBAR
	LOSS PARA	0.0214	0.0237	0.0233	0.0235	0.0168	0.0239	0.0306	0.0272	0.0232	LOSS PARA
	DFAC	0.7101	0.6990	0.6729	0.5819	0.5374	0.5290	0.5280	0.5279	0.5287	DFAC
	EFFP	0.9202	0.9115	0.9115	0.9036	0.9260	0.8922	0.8565	0.8695	0.8852	EFFP
	INCID	6.116	7.916	7.865	0.581	-2.615	-3.846	-3.739	-3.110	-2.286	INCID
	DEVM	15.654	16.380	16.113	15.605	14.253	14.502	14.903	14.192	13.370	DEVM
	P 3	15.307	15.378	15.494	16.051	15.973	15.905	15.920	15.861	15.793	P 3
	P 4	14.934	14.971	15.098	15.644	15.715	15.576	15.528	15.524	15.517	P 4
	T 3	342.167	341.333	340.000	335.167	331.278	330.833	332.611	333.167	333.722	T 3
	T 4	342.167	341.333	340.000	335.167	331.278	330.833	332.611	333.167	333.722	T 4

ORIGINAL PAGE IS
OF POOR QUALITY

Table B-6. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 99.55 Equivalent Rotor Speed = 9891.19 Equivalent Weight Flow = 14.997 kg/sec
Hub Radial Distortion
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	95.79	91.71	86.89	70.41	49.21	29.10	13.80	9.00	4.70	PCT SPAN
	DIA	0.425	0.432	0.439	0.464	0.495	0.526	0.549	0.556	0.562	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	16.058	14.994	14.277	13.044	12.785	13.196	13.955	14.974	16.626	BETA 2
	V 1	73.83	75.99	80.57	100.93	129.81	141.73	140.76	136.11	129.70	V 1
	V 2	84.45	87.07	89.45	106.18	128.92	143.50	141.24	137.51	134.32	V 2
	VZ 1	73.83	75.99	80.56	100.90	129.67	141.47	140.41	134.75	129.32	VZ 1
	VZ 2	81.15	84.10	86.66	103.34	125.37	138.98	136.04	131.75	127.55	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	23.36	22.52	22.05	23.94	28.45	32.59	33.81	35.24	38.09	V-THETA 2
	M 1	0.2180	0.2244	0.2381	0.2993	0.3871	0.4239	0.4209	0.4085	0.3888	M 1
	M 2	0.2497	0.2575	0.2647	0.3151	0.3844	0.4294	0.4224	0.4109	0.4010	M 2
	TURN	-16.06	-14.99	-14.27	-13.03	-12.75	-13.13	-13.85	-14.85	-16.47	TURN
	UUBAR	0.1207	0.1137	0.1512	0.1010	0.0815	-0.0061	0.0492	0.0470	0.0366	UUBAR
	DFAC	-0.016	-0.026	0.001	0.046	0.100	0.088	0.105	0.102	0.107	DFAC
	EFFP	0.7227	0.7376	0.6116	0.5228	-0.2170	1.2877	0.1306	0.4494	0.6783	EFFP
	INCID	5.9000	5.9200	5.9700	6.2500	6.6600	7.0000	7.3200	7.4200	7.4200	INCID
	DEVM	0.943	2.307	3.406	5.769	7.491	8.484	8.852	8.202	6.807	DEVM
	P 1	9.399	9.429	9.477	9.717	10.160	10.426	10.463	10.374	10.293	P 1
	P 2	9.362	9.392	9.421	9.658	10.079	10.434	10.404	10.323	10.256	P 2
	T 1	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 1
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	UUBAR FS										UUBAR FS
	P1 FS										P1 FS
	LOSS PARA FS										LOSS PARA FS

ROTOR F	PCT SPAN	95.01	89.69	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA	0.425	0.430	0.436	0.453	0.475	0.498	0.515	0.520	0.526	DIA
ROTOR -L.E.	BETA 2	12.778	12.125	11.598	10.572	10.116	10.208	10.815	11.652	12.963	BETA 2
ROTOR -T.E.	BETA 3	68.105	66.812	65.162	57.156	52.314	52.056	52.789	53.618	52.406	BETA 3
	BETA(PR) 2	62.238	62.160	61.997	58.370	53.658	50.681	52.941	53.427	54.201	BETA(PR) 2
	BETA(PR) 3	-26.470	-20.373	-14.422	-0.293	11.957	18.229	22.571	24.152	24.862	BETA(PR) 3
	V 2	105.92	107.83	110.46	122.76	146.05	190.45	188.34	182.83	178.25	V 2
	V 3	296.68	288.59	282.47	280.13	268.80	258.86	250.02	247.60	244.01	V 3
	VZ 2	103.30	105.43	108.20	130.44	163.13	186.66	183.92	177.93	172.14	VZ 2
	VZ 3	110.51	113.53	118.63	151.00	164.22	155.34	122.07	120.04	112.19	VZ 3
	V-THETA 2	23.43	22.65	22.21	24.34	29.10	33.61	35.13	36.64	38.65	V-THETA 2
	V-THETA 3	274.99	268.04	256.30	235.30	212.58	206.62	211.23	213.27	215.93	V-THETA 3
	V(PR) 2	221.8	225.8	230.5	248.8	275.5	297.0	301.7	299.3	296.4	V(PR) 2
	V(PR) 3	124.2	121.7	122.6	152.0	167.9	164.1	144.8	137.8	126.9	V(PR) 3
	VTHETA PR2	-196.2	-199.6	-203.5	-211.8	-221.7	-230.3	-238.2	-239.8	-240.1	VTHETA PR2
	VTHETA PR3	55.0	42.2	30.5	0.8	-33.6	-51.2	-66.3	-66.2	-66.4	VTHETA PR3
	U 2	219.67	222.27	225.68	236.13	250.83	263.96	273.45	276.61	279.77	U 2
	U 3	219.96	222.88	225.79	234.52	246.16	257.81	266.54	269.45	272.37	U 3
	M 2	0.3143	0.3201	0.3281	0.3962	0.5000	0.5781	0.5712	0.5526	0.5384	M 2
	M 3	0.8547	0.8296	0.8117	0.8096	0.7787	0.7470	0.7160	0.7078	0.6959	M 3

	M(PR) 2	0.6581	0.6702	0.6845	0.7424	0.8295	0.8914	0.9151	0.9061	0.8946	M(PR) 2
	M(PR) 3	0.3578	0.3499	0.3523	0.4343	0.4864	0.4736	0.4145	0.3938	0.3619	M(PR) 3
	TURN(PR)	88.537	82.427	76.404	58.650	42.062	32.691	29.708	29.191	27.649	TURN(PR)
	UUBAR	0.3156	0.2847	0.2503	0.0789	0.0615	0.1368	0.2113	0.2359	0.2265	UUBAR
	LOSS PARA	0.0910	0.0872	0.0804	0.0274	0.0221	0.0503	0.0783	0.0800	0.0833	LOSS PARA
	DFAC	0.8056	0.8122	0.8049	0.6817	0.6219	0.6881	0.7504	0.7751	0.8118	DFAC
	EFFP	0.8578	0.8600	0.8765	0.9628	0.9853	0.8851	0.8209	0.8257	0.8169	EFFP
	EFF	0.8469	0.8504	0.8672	0.9569	0.9829	0.8773	0.8068	0.8126	0.8058	EFF
	INCID	6.588	7.760	7.996	4.437	-0.851	-4.586	-4.497	-4.304	-4.284	INCID
	DEVM	7.602	5.833	5.592	7.707	9.338	8.670	11.165	13.165	14.809	DEVM
	P 2	9.362	9.392	9.421	9.655	10.079	10.434	10.404	10.323	10.256	P 2
	P 3	15.887	15.820	15.798	16.367	16.345	16.212	15.975	15.942	15.850	P 3
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	T 3	343.667	342.611	341.055	337.000	332.500	332.222	334.555	334.055	335.555	T 3

STATOR F	PCT SPAN	95.81	92.01	86.21	69.91	48.21	29.51	16.11	9.31	4.51	PCT SPAN
	DIA	0.423	0.427	0.432	0.448	0.468	0.487	0.502	0.506	0.511	DIA
STATOR-L.E.	BETA 3	68.848	65.813	63.152	54.566	49.982	50.802	55.426	57.196	59.041	BETA 3
STATOR-T.E.	BETA 4	2.311	2.393	2.765	7.711	-0.784	10.346	10.764	10.641	10.611	BETA 4
	V 3	294.92	290.69	287.29	280.03	277.67	267.78	257.68	254.98	250.52	V 3
	V 4	167.47	166.23	165.51	184.97	180.62	150.39	128.26	128.78	126.78	V 4
	VZ 3	106.42	119.10	129.78	167.59	178.41	168.98	145.96	137.59	127.17	VZ 3
	VZ 4	167.32	166.06	165.29	183.21	186.64	186.85	184.15	184.46	181.18	VZ 4
	V-THETA 3	275.05	268.17	256.40	235.44	212.48	207.20	211.78	213.91	216.62	V-THETA 3
	V-THETA 4	6.75	6.94	7.98	24.80	32.19	34.11	36.07	35.36	36.40	V-THETA 4
	M 3	0.8489	0.8364	0.8278	0.8369	0.8077	0.7717	0.7403	0.7311	0.7177	M 3
	M 4	0.4601	0.4573	0.4563	0.5118	0.5333	0.4368	0.4275	0.4287	0.4311	M 4
	TURN(PR)	66.537	63.418	60.383	46.941	40.155	40.373	44.537	46.233	48.544	TURN(PR)
	UUBAR	0.1089	0.1042	0.1098	0.1100	0.0959	0.0889	0.0849	0.0758	0.0582	UUBAR
	LOSS PARA	0.0348	0.0336	0.0360	0.0373	0.0340	0.0330	0.0326	0.0309	0.0270	LOSS PARA
	DFAC	0.7234	0.7163	0.7088	0.6107	0.5532	0.5361	0.5416	0.5407	0.5363	DFAC
	EFFP	0.8718	0.8760	0.8677	0.8515	0.8556	0.8597	0.8496	0.8537	0.8491	EFFP
	INCID	3.848	6.411	7.347	2.748	-2.673	-5.856	-2.226	-1.612	-0.515	INCID
	DEVM	7.561	8.393	8.564	12.487	13.873	14.321	14.737	13.964	13.143	DEVM
	P 3	15.887	15.820	15.798	16.367	16.345	16.212	15.975	15.942	15.850	P 3
	P 4	15.737	15.214	15.170	15.702	15.798	15.736	15.562	15.562	15.551	P 4
	T 3	343.667	342.611	341.055	337.000	332.500	332.222	334.555	334.055	335.555	T 3
	T 4	343.667	342.611	341.055	337.000	332.500	332.222	334.555	334.055	335.555	T 4

ORIGINAL PAGE IS
OF POOR QUALITY

C-2

Table B-6. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 84.87 Equivalent Rotor Speed = 8432.45 Equivalent Weight Flow = 16.239 kg/sec
Hub Radial Distortion
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	95.79	91.71	86.89	70.41	49.21	29.10	13.80	9.00	4.70	PCT SPAN
	DIA	0.425	0.432	0.439	0.464	0.495	0.526	0.549	0.556	0.562	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	16.025	14.638	13.710	12.673	12.731	13.213	14.375	15.788	17.603	BETA 2
	V 1	92.53	88.95	97.43	124.18	150.02	163.10	156.37	151.37	145.27	V 1
	V 2	93.88	97.43	101.55	120.57	145.00	161.32	160.15	155.86	150.81	V 2
	VZ 1	82.53	88.95	97.43	124.13	149.87	162.80	157.97	150.96	144.84	VZ 1
	VZ 2	90.23	94.26	97.63	117.91	141.04	156.23	153.97	148.77	142.48	VZ
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	25.92	24.62	24.06	26.42	31.86	36.68	39.46	42.07	45.20	V-THETA 2
	M 1	0.2440	0.2632	0.2867	0.3699	0.4497	0.4907	0.4758	0.4539	0.4364	M 1
	M 2	0.2786	0.2887	0.3011	0.3588	0.4341	0.4851	0.4814	0.4679	0.4521	M 2
	TURN	-16.02	-14.64	-13.71	-12.66	-12.69	-13.14	-14.26	-15.64	-17.44	TURN
	UUBAR	0.2611	0.2923	0.3202	0.2731	0.1555	0.0514	0.0347	0.0273	0.0477	UUBAR
	DFAC	-0.011	0.016	0.058	0.117	0.124	0.110	0.101	0.098	0.108	DFAC
	EFFP	0.5352	0.4121	0.2169	-0.2822	-0.3430	-0.8779	0.4176	0.7068	0.6386	EFFP
	INCID	5.9000	5.9200	5.9700	6.2500	6.6600	7.0000	7.3200	7.4200	7.4200	INCID
	DEVM	0.976	2.663	3.973	6.140	7.545	8.466	8.435	7.414	5.838	DEVM
	P 1	9.153	9.227	9.324	9.697	10.182	10.525	10.496	10.369	10.284	P 1
	P 2	9.056	9.101	9.157	9.459	9.977	10.443	10.443	10.331	10.205	P 2
	T 1	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 1
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	UUBAR FS										UUBAR FS
	P1 FS										P1 FS
	LOSS PARA FS										LOSS PARA FS
ROTOR F	PCT SPAN	95.01	89.99	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA	0.425	0.430	0.436	0.453	0.475	0.498	0.515	0.520	0.526	DIA
ROTOR -L.E.	BETA 2	12.689	11.777	11.070	10.163	9.867	9.854	10.708	11.848	13.312	BETA 2
ROTOR -T.E.	BETA 3	64.700	57.849	54.101	48.173	43.059	44.369	47.016	48.558	50.962	BETA 3
	BETA(PR) 2	54.405	54.216	53.630	49.330	44.041	40.678	41.536	42.641	43.908	BETA(PR) 2
	BETA(PR) 3	-20.256	-9.930	-4.794	4.766	11.642	17.256	19.966	20.932	22.284	BETA(PR) 3
	V 2	118.33	121.29	126.20	152.34	190.63	222.00	222.01	214.39	205.78	V 2
	V 3	251.59	252.58	253.08	256.69	252.14	238.98	232.62	229.67	224.98	V 3
	VZ 2	115.44	118.74	123.85	149.88	187.42	217.81	216.87	208.49	198.89	VZ 2
	VZ 3	107.37	134.19	148.34	177.69	184.12	179.53	158.21	151.61	141.32	VZ 3
	V-THETA 2	25.99	24.76	24.23	26.87	32.60	37.53	41.01	43.74	47.06	V-THETA 2
	V-THETA 3	227.14	213.50	204.93	185.12	171.93	166.82	169.75	171.72	174.28	V-THETA 3
	V(PR) 2	198.3	203.1	208.9	230.0	261.0	287.9	290.7	284.4	277.1	V(PR) 2
	V(PR) 3	115.2	137.0	149.0	176.4	188.3	179.1	159.1	151.2	153.6	V(PR) 3
	VTHETA PR2	-161.3	-164.7	-168.2	-174.4	-181.2	-187.2	-192.3	-192.0	-191.5	VTHETA PR2
	VTHETA PR3	39.6	23.5	12.4	-14.8	-37.9	-53.0	-57.5	-58.0	-57.9	VTHETA PR3
	U 2	187.27	189.49	192.40	201.30	213.84	225.03	233.12	238.73	238.51	U 2
	U 3	187.52	190.01	192.49	199.94	209.86	219.79	227.23	229.71	232.20	U 3
	M 2	0.3520	0.3611	0.3761	0.4569	0.5786	0.6820	0.6821	0.6566	0.6281	M 2
	M 3	0.7318	0.7365	0.7401	0.7565	0.7451	0.7029	0.6814	0.6718	0.6567	M 3
	M(PR) 2	0.5900	0.6045	0.6224	0.6849	0.7923	0.8846	0.8931	0.8712	0.8458	M(PR) 2
	M(PR) 3	0.3351	0.3994	0.4358	0.5259	0.5564	0.5269	0.4954	0.4773	0.4484	M(PR) 3
	TURN(PR)	74.521	64.092	58.418	44.553	32.357	23.357	21.493	21.632	21.553	TURN(PR)
	UUBAR	0.3620	0.2058	0.1092	-0.0650	-0.0111	0.1332	0.1716	0.1691	0.1742	UUBAR
	LOSS PARA	0.1094	0.0666	0.0361	-0.0225	-0.0040	0.0492	0.0646	0.0642	0.0663	LOSS PARA
	DFAC	0.7461	0.6296	0.5735	0.4617	0.4717	0.5479	0.5924	0.6052	0.6301	DFAC
	EFFP	0.8182	0.8727	0.9333	1.0593	1.0301	0.8319	0.7842	0.7948	0.7980	EFFP
	EFF	0.8096	0.8660	0.9297	1.0626	1.0316	0.8253	0.7761	0.7869	0.7902	EFF
	INCID	-1.245	-0.184	-0.372	-4.505	-10.471	-14.894	-15.307	-15.098	-15.297	INCID
	DEVM	13.784	16.225	15.211	12.762	9.422	7.699	8.570	9.919	12.550	DEVM
	P 2	9.056	9.101	9.157	9.459	9.977	10.443	10.443	10.331	10.205	P 2
	P 3	12.849	13.073	13.278	13.837	14.009	13.673	13.561	13.483	13.345	P 3
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	T 3	325.611	324.444	322.889	319.305	316.611	316.111	316.944	317.111	317.222	T 3
STATOR F	PCT SPAN	95.81	92.01	86.21	69.91	49.21	29.51	14.11	9.31	4.51	PCT SPAN
	DIA	0.423	0.427	0.432	0.448	0.468	0.487	0.502	0.506	0.511	DIA
STATOR-L.E.	BETA 3	64.967	57.306	53.116	44.782	41.549	42.945	45.566	47.086	49.480	BETA 3
STATOR-T.E.	BETA 4	8.228	8.158	8.017	7.771	8.036	9.053	9.621	9.639	9.522	BETA 4
	V 3	250.71	253.82	256.34	263.05	259.37	246.03	239.02	235.86	230.69	V 3
	V 4	195.80	201.19	209.74	229.43	233.37	225.43	222.48	220.17	217.63	V 4
	VZ 3	106.01	137.10	153.84	186.65	193.90	179.73	166.87	160.13	149.44	VZ 3
	VZ 4	193.77	199.13	207.65	227.21	230.80	222.08	218.42	215.94	213.27	VZ 4
	V-THETA 3	227.20	213.60	205.01	185.24	171.84	167.28	170.20	172.23	174.84	V-THETA 3
	V-THETA 4	28.02	28.55	29.24	31.01	32.59	35.39	37.03	36.67	35.77	V-THETA 4
	M 3	0.7290	0.7405	0.7507	0.7775	0.7689	0.7257	0.7020	0.6916	0.6749	M 3
	M 4	0.5579	0.5753	0.6031	0.6685	0.6842	0.6594	0.6491	0.6417	0.6335	M 4
	TURN(PR)	56.759	49.146	45.094	36.996	33.468	33.805	35.824	37.316	39.818	TURN(PR)
	UUBAR	0.0439	0.0551	0.0432	0.0278	0.0625	0.0923	0.1256	0.1324	0.1254	UUBAR
	LOSS PARA	0.0139	0.0176	0.0140	0.0094	0.0223	0.0344	0.0484	0.0515	0.0493	LOSS PARA
	DFAC	0.4735	0.4441	0.4079	0.3297	0.2957	0.2889	0.2907	0.2976	0.3016	DFAC
	EFFP	0.9075	0.8786	0.8939	0.9078	0.7377	0.5285	0.2171	0.1376	0.0396	EFFP
	INCID	-0.014	-2.097	-2.691	-7.537	-11.106	-11.714	-12.096	-11.795	-10.920	INCID
	DEVM	13.478	14.157	13.815	12.517	12.127	13.031	13.580	12.789	11.761	DEVM
	P 3	12.849	13.073	13.278	13.837	14.009	13.673	13.561	13.483	13.345	P 3
	P 4	12.681	12.853	13.099	13.711	13.726	13.300	13.084	12.995	12.905	P 4
	T 3	325.611	324.444	322.889	319.305	316.611	316.111	316.944	317.111	317.222	T 3
	T 4	325.611	324.444	322.889	319.305	316.611	316.111	316.944	317.111	317.222	T 4

Table B-6. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 85.02 Equivalent Rotor Speed = 8447.75 Equivalent Weight Flow = 13.930 kg/sec
Hub Radial Distortion
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	95.79	91.71	86.89	78.41	49.21	29.10	13.80	9.00	4.70	PCT SPAN
	DIA	0.425	0.432	0.439	0.464	0.495	0.526	0.549	0.556	0.562	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	15.425	14.427	13.669	12.713	12.596	12.882	13.937	15.021	15.737	BETA 2
	V 1	70.39	70.59	73.33	98.36	121.67	134.41	132.05	126.85	122.20	V 1
	V 2	80.95	82.24	85.33	102.01	121.02	134.71	133.37	129.76	126.01	V 2
	VZ 1	70.39	70.58	73.32	98.35	121.54	134.16	131.72	126.50	121.84	VZ 1
	VZ 2	78.03	79.64	82.90	99.41	117.78	130.63	128.48	124.29	120.19	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	21.53	20.49	20.16	22.43	26.32	29.88	31.88	33.35	33.87	V-THETA 2
	M 1	0.2077	0.2083	0.2165	0.2916	0.3622	0.4013	0.3940	0.3780	0.3638	M 1
	M 2	0.2392	0.2431	0.2523	0.3025	0.3602	0.4022	0.3981	0.3870	0.3755	M 2
	TURN	-15.42	-14.43	-13.67	-12.70	-12.56	-12.81	-13.83	-14.89	-15.59	TURN
	UUBAR	0.1166	0.1030	0.0714	0.1166	0.0829	0.0200	0.0311	0.0301	0.0406	UUBAR
	DFAC	-0.027	-0.048	-0.052	0.058	0.098	0.095	0.098	0.098	0.099	DFAC
	EFFP	0.7360	0.7796	0.8352	0.8995	-0.1568	0.1961	0.4101	0.6215	0.6227	EFFP
	INCID	5.4000	5.9200	6.5700	6.2500	6.6000	7.0000	7.3200	7.4200	7.4200	INCID
	DEVM	1.576	2.674	4.014	6.100	7.678	8.797	8.870	8.156	7.689	DEVM
	P 1	9.494	9.505	9.534	9.803	10.146	10.401	10.405	10.328	10.263	P 1
	P 2	9.461	9.475	9.512	9.736	10.073	10.379	10.372	10.299	10.226	P 2
	T 1	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 1
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	UUBAR FS										UUBAR FS
	P1 FS										P1 FS
	LOSS PARA FS										LOSS PARA FS
ROTOR F	PCT SPAN	95.01	89.99	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA	0.425	0.430	0.436	0.453	0.475	0.498	0.515	0.520	0.526	DIA
ROTOR -L.E.	BETA 2	12.299	11.695	11.129	10.332	10.046	10.093	10.922	11.810	12.386	BETA 2
ROTOR -T.E.	BETA 3	67.894	63.451	60.401	53.677	49.223	49.266	52.859	54.709	56.236	BETA 3
	BETA(PR) 2	59.180	59.541	59.101	55.034	50.940	48.348	49.412	50.493	51.752	BETA(PR) 2
	BETA(PR) 3	-24.003	-15.403	-9.928	2.181	12.886	16.586	22.037	23.729	25.427	BETA(PR) 3
	V 2	101.37	101.64	105.18	127.21	154.69	176.57	175.69	170.76	165.52	V 2
	V 3	247.80	247.04	246.33	241.39	232.11	225.66	218.48	215.46	211.62	V 3
	VZ 2	99.04	99.53	103.20	125.09	152.00	173.12	171.70	166.09	160.56	VZ 2
	VZ 3	93.15	110.29	121.64	143.24	151.48	147.03	131.97	124.23	117.37	VZ 3
	V-THETA 2	21.59	20.60	20.30	22.80	26.93	30.82	33.13	34.73	35.26	V-THETA 2
	V-THETA 3	229.34	220.74	214.13	194.84	175.64	170.74	174.23	175.52	175.56	V-THETA 3
	V(PR) 2	193.3	196.3	201.0	218.3	241.4	261.0	264.6	261.6	260.1	V(PR) 2
	V(PR) 3	102.6	115.0	123.6	143.4	155.6	155.6	143.6	138.4	131.2	V(PR) 3
	VTHETA PR2	-166.0	-169.2	-172.4	-178.9	-187.3	-194.6	-200.4	-201.4	-203.7	VTHETA PR2
	VTHETA PR3	41.5	30.4	21.3	-5.5	-34.6	-49.4	-53.6	-54.6	-57.1	VTHETA PR3
	U 2	177.01	189.84	192.75	201.67	214.73	225.44	233.94	236.16	236.95	U 2
	U 3	178.86	190.35	192.84	200.31	210.74	220.18	227.04	230.13	232.62	U 3
	M 2	0.3006	0.3014	0.3121	0.3792	0.4693	0.5334	0.5313	0.5149	0.4983	M 2
	M 3	0.7178	0.7162	0.7151	0.7048	0.6775	0.6573	0.6359	0.6237	0.6115	M 3
	M(PR) 2	0.5732	0.5822	0.5963	0.6507	0.7246	0.7884	0.7992	0.7894	0.7830	M(PR) 2
	M(PR) 3	0.2973	0.3334	0.3589	0.4179	0.4543	0.4533	0.4147	0.3948	0.3791	M(PR) 3
	TURN(PR)	83.023	74.861	69.018	52.840	38.035	29.700	27.307	26.702	25.775	TURN(PR)
	UUBAR	0.3289	0.2277	0.1548	0.0466	0.0421	0.1046	0.1610	0.1682	0.1767	UUBAR
	LOSS PARA	0.0968	0.0717	0.0606	0.0162	0.0150	0.0384	0.0599	0.0626	0.0654	LOSS PARA
	DFAC	0.8156	0.7478	0.7048	0.6149	0.5784	0.6076	0.6696	0.6934	0.7129	DFAC
	EFFP	0.8445	0.8814	0.9191	0.9749	0.9739	0.8937	0.8491	0.8413	0.8364	EFFP
	EFF	0.8361	0.8748	0.9144	0.9735	0.9726	0.8941	0.8381	0.8367	0.8291	EFF
	INCID	3.530	5.141	5.100	1.149	-3.570	-7.225	-7.430	-7.243	-7.448	INCID
	DEVM	10.058	10.779	10.083	10.179	10.645	9.025	10.633	12.705	16.177	DEVM
	P 2	9.461	9.475	9.512	9.736	10.073	10.379	10.372	10.299	10.226	P 2
	P 3	13.761	13.922	14.067	14.264	14.226	14.235	14.118	14.038	13.940	P 3
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	T 3	327.111	326.444	325.444	322.278	318.889	316.611	319.833	320.111	320.333	T 3
STATOR F	PCT SPAN	95.81	92.01	86.21	69.91	49.21	29.51	14.11	9.31	4.51	PCT SPAN
	DIA	0.423	0.427	0.432	0.446	0.466	0.487	0.502	0.508	0.511	DIA
STATOR-L.E.	BETA 3	68.252	62.855	59.259	52.169	47.726	47.806	51.299	53.117	54.041	BETA 3
STATOR-T.E.	BETA 4	14.261	13.828	13.027	11.099	10.202	10.484	10.435	10.302	10.193	BETA 4
	V 3	240.97	248.19	249.25	246.91	237.46	231.50	224.33	220.94	216.47	V 3
	V 4	139.46	145.07	153.18	169.50	170.72	171.05	169.27	167.98	166.55	V 4
	VZ 3	91.51	113.23	127.40	151.40	159.60	155.22	139.95	132.09	124.98	VZ 3
	VZ 4	135.16	140.65	149.20	166.25	167.82	167.83	165.77	164.42	161.91	VZ 4
	V-THETA 3	229.34	220.65	214.21	194.96	175.56	171.22	174.69	176.04	176.12	V-THETA 3
	V-THETA 4	34.35	34.67	34.52	32.61	30.20	30.83	30.53	29.88	29.11	V-THETA 4
	M 3	0.7152	0.7199	0.7245	0.7209	0.6946	0.6754	0.6516	0.6397	0.6286	M 3
	M 4	0.3905	0.4071	0.4314	0.4818	0.4881	0.4873	0.4831	0.4796	0.4716	M 4
	TURN(PR)	53.991	49.028	46.228	41.070	37.482	37.313	40.750	42.695	44.321	TURN(PR)
	UUBAR	0.0880	0.0942	0.0843	0.0814	0.0390	0.0602	0.0645	0.0582	0.0506	UUBAR
	LOSS PARA	0.0273	0.0295	0.0270	0.0128	0.0138	0.0223	0.0248	0.0226	0.0199	LOSS PARA
	DFAC	0.6883	0.6591	0.6233	0.5399	0.5038	0.4930	0.5006	0.5045	0.5107	DFAC
	EFFP	0.8906	0.8793	0.8363	0.9396	0.9322	0.8875	0.8717	0.8807	0.8946	EFFP
	INCID	3.252	3.453	3.452	-0.149	-4.329	-6.853	-6.360	-5.757	-5.751	INCID
	DEVM	19.510	19.827	18.824	15.843	14.289	14.384	14.390	13.448	12.428	DEVM
	P 3	13.761	13.922	14.067	14.264	14.228	14.235	14.118	14.038	13.940	P 3
	P 4	13.411	13.539	13.717	14.104	14.075	14.009	13.892	13.841	13.776	P 4
	T 3	327.111	326.444	325.444	322.278	318.889	316.611	319.833	320.111	320.333	T 3
	T 4	327.111	326.444	325.444	322.278	318.889	316.611	319.833	320.111	320.333	T 4

Table B-6. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 84.76 Equivalent Rotor Speed = 8421.83 Equivalent Weight Flow = 12.210 kg/sec
Hub Radial Distortion
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	95.79	91.71	86.89	70.41	49.21	29.10	13.80	9.00	4.70	PCT SPAN
	DIA	0.425	0.432	0.439	0.464	0.495	0.526	0.549	0.556	0.562	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	16.106	15.076	14.357	13.028	12.662	12.620	14.012	14.314	15.814	BETA 2
	V 1	56.92	64.12	71.62	90.03	108.46	116.37	112.52	108.80	105.13	V 1
	V 2	69.87	71.71	73.37	87.11	105.05	116.38	114.41	111.55	107.67	V 2
	VZ 1	56.92	64.12	71.61	89.99	108.35	116.15	112.23	108.50	104.82	VZ 1
	VZ 2	67.13	69.24	71.06	84.79	102.21	112.97	110.18	107.19	102.94	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	19.38	18.65	18.19	19.62	22.96	25.29	27.49	27.35	29.16	V-THETA 2
	M 1	0.1677	0.1891	0.2114	0.2664	0.3220	0.3460	0.3343	0.3230	0.3119	M 1
	M 2	0.2062	0.2117	0.2166	0.2577	0.3117	0.3461	0.3401	0.3314	0.3205	M 2
	TURN	-16.11	-15.07	-14.35	-13.02	-12.63	-12.55	-13.90	-14.19	-15.67	TURN
	UUBAR	0.0	0.1656	0.2884	0.2476	0.1423	0.0437	0.0420	0.0501	0.0753	UUBAR
	DFAC	-0.090	-0.001	0.079	0.123	0.122	0.095	0.093	0.090	0.103	DFAC
	EFFP	1.0000	0.6054	0.1479	-0.3584	-0.8254	0.0048	0.4586	0.5167	0.4307	EFFP
	INCID	5.9000	5.9200	5.9700	6.2500	6.6600	7.0000	7.3200	7.4200	7.4200	INCID
	DEVM	0.894	2.226	3.326	5.785	7.614	8.057	8.795	8.857	7.613	DEVM
	P 1	9.606	9.664	9.728	9.922	10.173	10.323	10.202	10.259	10.216	P 1
	P 2	9.606	9.624	9.642	9.803	10.072	10.287	10.269	10.223	10.166	P 2
	T 1	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 1
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	UUBAR FS										UUBAR FS
	P1 FS										P1 FS
	LOSS PARA FS										LOSS PARA FS
ROTOR F	PCT SPAN	95.01	89.99	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA	0.425	0.430	0.436	0.453	0.475	0.498	0.515	0.520	0.526	DIA
ROTOR -L.E.	BETA 2	12.897	12.268	11.742	10.671	10.225	10.085	11.209	11.470	12.664	BETA 2
ROTOR -T.E.	BETA 3	68.095	66.027	64.232	55.028	50.458	52.673	57.647	59.859	62.920	BETA 3
	BETA(PR) 2	63.133	63.168	63.119	59.689	55.581	53.560	54.779	55.855	56.961	BETA(PR) 2
	BETA(PR) 3	-24.512	-18.482	-13.724	-1.043	11.444	18.869	23.241	24.851	26.775	BETA(PR) 3
	V 2	87.10	88.26	90.01	107.79	132.62	149.61	147.86	144.13	139.40	V 2
	V 3	247.44	244.17	242.05	246.88	233.04	219.26	211.51	209.38	207.35	V 3
	VZ 2	84.90	86.24	88.12	105.87	130.24	146.68	144.19	140.36	135.68	VZ 2
	VZ 3	92.22	99.12	105.20	141.47	148.26	132.78	113.02	104.98	95.55	VZ 3
	V-THETA 2	19.44	18.75	18.32	19.95	23.49	26.09	28.57	28.48	30.25	V-THETA 2
	V-THETA 3	229.33	222.90	217.94	202.26	179.58	174.13	178.41	180.80	182.70	V-THETA 3
	V(PR) 2	187.9	191.1	194.9	209.8	230.6	247.3	250.5	250.6	248.4	V(PR) 2
	V(PR) 3	102.0	105.0	109.4	141.6	151.5	140.8	123.5	116.3	107.6	V(PR) 3
	VTHETA PR2	-167.6	-170.5	-173.8	-181.1	-190.1	-198.7	-204.3	-207.0	-207.9	VTHETA PR2
	VTHETA PR3	42.0	33.1	25.7	2.6	-30.0	-45.4	-48.5	-48.6	-48.2	VTHETA PR3
	U 2	187.04	189.26	192.16	201.05	213.57	224.75	232.83	235.44	238.21	U 2
	U 3	187.28	189.77	192.25	199.68	209.60	219.51	226.95	229.42	231.91	U 3
	M 2	0.2577	0.2611	0.2664	0.3200	0.3956	0.4484	0.4429	0.4314	0.4167	M 2
	M 3	0.7161	0.7063	0.7003	0.7183	0.6787	0.6355	0.6097	0.6024	0.5954	M 3
	M(PR) 2	0.5557	0.5653	0.5768	0.6228	0.6881	0.7413	0.7505	0.7500	0.7426	M(PR) 2
	M(PR) 3	0.2952	0.3038	0.3136	0.4120	0.4472	0.4080	0.3561	0.3345	0.3089	M(PR) 3
	TURN(PR)	87.483	81.553	76.828	60.718	44.049	34.635	31.483	30.957	30.171	TURN(PR)
	UUBAR	0.3841	0.3356	0.2902	0.0575	0.0481	0.1638	0.2326	0.2553	0.2642	UUBAR
	LOSS PARA	0.1126	0.1040	0.0935	0.0199	0.0173	0.0599	0.0858	0.0942	0.0970	LOSS PARA
	DFAC	0.8173	0.7999	0.7835	0.6251	0.5882	0.6587	0.7428	0.7787	0.8160	DFAC
	EFFP	0.8252	0.8379	0.8597	0.9689	0.9712	0.8652	0.8053	0.7944	0.7903	EFFP
	EFF	0.8158	0.8292	0.8521	0.9671	0.9696	0.8590	0.7966	0.7851	0.7807	EFF
	INCID	7.483	8.768	9.118	5.856	1.074	-2.008	-2.055	-1.871	-2.207	INCID
	DEVM	9.550	7.716	6.290	6.957	9.225	9.307	11.632	13.822	17.022	DEVM
	P 2	9.606	9.624	9.642	9.803	10.072	10.287	10.269	10.223	10.166	P 2
	P 3	13.908	13.958	14.033	14.639	14.445	14.151	14.008	13.979	13.965	P 3
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	T 3	327.555	327.111	326.444	324.333	320.417	320.167	321.722	322.500	323.222	T 3
STATOR F	PCT SPAN	95.81	92.01	86.21	69.91	49.21	29.51	14.11	9.31	4.51	PCT SPAN
	DIA	0.423	0.427	0.432	0.448	0.468	0.487	0.502	0.506	0.511	DIA
STATOR-L.E.	BETA 3	68.457	65.400	62.959	53.378	48.891	51.117	55.900	58.026	60.565	BETA 3
STATOR-T.E.	BETA 4	5.767	5.871	6.169	10.059	10.831	10.535	10.122	9.976	9.896	BETA 4
	V 3	246.62	245.27	244.80	252.22	238.43	224.65	216.41	214.15	211.96	V 3
	V 4	131.28	133.04	137.96	161.80	161.58	156.62	155.66	156.13	156.40	V 4
	VZ 3	90.56	102.10	111.29	150.42	156.63	140.81	121.11	113.20	103.98	VZ 3
	VZ 4	130.61	132.32	137.13	159.23	158.51	153.61	152.58	152.98	153.59	VZ 4
	V-THETA 3	229.39	223.00	218.03	202.38	179.50	174.61	178.88	181.34	184.28	V-THETA 3
	V-THETA 4	13.19	13.61	14.82	28.24	30.33	28.57	27.24	26.91	26.80	V-THETA 4
	M 3	0.7135	0.7097	0.7090	0.7355	0.6959	0.6524	0.6249	0.6171	0.6096	M 3
	M 4	0.3667	0.3720	0.3866	0.4574	0.4597	0.4452	0.4413	0.4421	0.4439	M 4
	TURN(PR)	62.690	59.528	56.785	43.307	38.019	40.500	45.670	47.939	50.558	TURN(PR)
	UUBAR	0.1119	0.1152	0.1121	0.1168	0.0952	0.0774	0.0641	0.0566	0.0509	UUBAR
	LOSS PARA	0.0356	0.0370	0.0366	0.0393	0.0336	0.0287	0.0247	0.0220	0.0200	LOSS PARA
	DFAC	0.7484	0.7346	0.7100	0.5961	0.5500	0.5513	0.5568	0.5602	0.5610	DFAC
	EFFP	0.8672	0.8610	0.8603	0.8338	0.8508	0.8703	0.8846	0.8948	0.9018	EFFP
	INCID	3.456	5.998	7.153	1.060	-3.763	-3.540	-1.751	-0.837	0.192	INCID
	DEVM	11.016	11.871	11.968	14.803	14.918	14.510	14.078	13.124	12.133	DEVM
	P 3	13.908	13.958	14.033	14.639	14.445	14.151	14.008	13.979	13.965	P 3
	P 4	13.460	13.499	13.585	14.123	14.065	13.879	13.800	13.800	13.807	P 4
	T 3	327.555	327.111	326.444	324.333	320.417	320.167	321.722	322.500	323.222	T 3
	T 4	327.555	327.111	326.444	324.333	320.417	320.167	321.722	322.500	323.222	T 4

ORIGINAL PAGE IS
OF POOR QUALITY

Table B-6. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 69.86 Equivalent Rotor Speed = 6940.91 Equivalent Weight Flow = 13.949 kg/sec
Hub Radial Distortion
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	95.79	91.71	86.89	70.41	49.21	29.10	13.80	7.00	4.70	PCT SPAN
	DIA	0.425	0.432	0.439	0.464	0.495	0.526	0.549	0.556	0.562	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	15.261	14.556	13.787	12.626	12.624	12.921	14.063	14.960	16.347	BETA 2
	V 1	64.21	71.61	80.14	101.50	125.34	137.46	135.40	128.18	122.63	V 1
	V 2	79.61	82.33	85.43	101.13	122.38	136.22	134.60	130.63	127.62	V 2
	VZ 1	64.21	71.60	80.14	101.46	125.22	137.21	135.06	127.83	122.27	VZ 1
	VZ 2	76.80	79.68	82.95	98.59	119.08	132.08	129.58	125.16	121.36	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	20.95	20.69	20.35	22.08	26.67	30.30	32.46	33.44	35.60	V-THETA 2
	M 1	0.1894	0.2114	0.2366	0.3009	0.3734	0.4107	0.4043	0.3821	0.3651	M 1
	M 2	0.2352	0.2434	0.2526	0.2998	0.3644	0.4069	0.4019	0.3897	0.3804	M 2
	TURN	-15.26	-14.55	-13.78	-12.61	-12.59	-12.85	-13.96	-14.83	-16.20	TURN
	UUBAR	0.0313	0.1505	0.2389	0.2074	0.1249	0.0510	0.0754	0.0515	0.0323	UUBAR
	DFAC	-0.108	-0.033	0.037	0.094	0.115	0.106	0.114	0.101	0.096	DFAC
	EFFP	0.9456	0.6854	0.3681	-0.0378	-0.6559	-0.6090	-0.2010	0.4439	0.7310	EFFP
	INCID	5.9000	5.9200	5.9700	6.2500	6.6600	7.0000	7.3200	7.4200	7.4200	INCID
	DEVM	1.740	2.745	3.896	6.187	7.652	8.758	8.745	8.217	7.084	DEVM
	P 1	9.401	9.466	9.546	9.794	10.158	10.412	10.423	10.310	10.230	P 1
	P 2	9.394	9.423	9.459	9.670	10.041	10.354	10.339	10.259	10.201	P 2
	T 1	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 1
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	UUBAR FS										UUBAR FS
	P1 FS										P1 FS
	LOSS PARA FS										LOSS PARA FS

ROTOR F	PCT SPAN	95.01	89.99	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA	0.425	0.430	0.436	0.453	0.475	0.498	0.515	0.520	0.526	DIA
ROTOR -L.E.	BETA 2	12.177	11.798	11.224	10.267	10.054	10.104	11.003	11.749	12.838	BETA 2
ROTOR -T.E.	BETA 3	62.966	57.333	53.512	46.011	42.849	43.210	45.307	46.862	49.480	BETA 3
	BETA(PR) 2	53.811	53.615	53.159	49.126	44.023	41.280	42.350	43.560	44.404	BETA(PR) 2
	BETA(PR) 3	-18.041	-10.459	-5.535	4.011	10.780	15.637	18.337	20.045	21.749	BETA(PR) 3
	V 2	99.64	101.75	105.31	126.05	156.62	178.90	177.79	172.10	167.93	V 2
	V 3	209.64	211.08	212.36	214.31	210.94	203.95	198.65	193.64	188.03	V 3
	VZ 2	97.40	99.60	103.29	123.97	153.89	175.39	173.50	167.43	162.62	VZ 2
	VZ 3	95.14	113.75	126.24	148.79	154.51	148.37	139.35	132.03	121.82	VZ 3
	V-THETA 2	21.02	20.80	20.50	22.45	27.28	31.25	33.73	34.82	37.06	V-THETA 2
	V-THETA 3	186.45	177.40	170.67	154.14	143.32	139.38	140.85	140.91	142.53	V-THETA 3
	V(PR) 2	165.0	167.9	172.3	189.5	214.3	234.0	235.5	231.8	228.5	V(PR) 2
	V(PR) 3	101.1	116.3	127.0	149.3	157.5	154.6	147.5	141.3	131.9	V(PR) 3
	VTHETA PR2	-133.1	-135.2	-137.9	-143.2	-148.7	-154.0	-156.2	-159.2	-159.3	VTHETA PR2
	VTHETA PR3	32.1	21.0	12.2	-10.4	-29.4	-41.5	-46.2	-48.2	-48.6	VTHETA PR3
	U 2	154.15	155.98	158.37	165.70	176.02	185.23	191.88	194.04	196.32	U 2
	U 3	154.35	156.40	158.44	164.57	172.74	180.91	187.04	189.08	191.13	U 3
	M 2	0.2954	0.3017	0.3125	0.3756	0.4703	0.5409	0.5373	0.5192	0.5059	M 2
	M 3	0.6122	0.6174	0.6226	0.6314	0.6227	0.6008	0.5836	0.5679	0.5504	M 3
	M(PR) 2	0.4890	0.4979	0.5112	0.5646	0.6434	0.7073	0.7119	0.6994	0.6883	M(PR) 2
	M(PR) 3	0.2952	0.3402	0.3722	0.4398	0.4651	0.4554	0.4334	0.4143	0.3861	M(PR) 3
	TURN(PR)	72.321	64.017	58.687	45.103	33.200	25.573	23.929	23.434	22.581	TURN(PR)
	UUBAR	0.3263	0.1806	0.0817	-0.0549	-0.0028	0.1040	0.1323	0.1428	0.1698	UUBAR
	LOSS PARA	0.0996	0.0580	0.0270	-0.0190	-0.0010	0.0387	0.0504	0.0545	0.0649	LOSS PARA
	DFAC	0.7105	0.6126	0.5522	0.4521	0.4606	0.5147	0.5526	0.5726	0.6081	DFAC
	EFFP	0.8250	0.8812	0.9455	1.0526	1.0187	0.8696	0.8331	0.8218	0.7947	EFFP
	EFF	0.8188	0.8769	0.9434	1.0546	1.0193	0.8659	0.8284	0.8169	0.7893	EFF
	INCID	-1.839	-0.785	-0.842	-4.709	-10.488	-14.292	-14.493	-14.180	-14.802	INCID
	DEVM	15.389	15.699	14.471	12.008	8.561	6.085	6.948	9.036	12.017	DEVM
	P 2	9.394	9.423	9.459	9.670	10.041	10.354	10.339	10.259	10.201	P 2
	P 3	12.006	12.166	12.304	12.581	12.690	12.610	12.544	12.424	12.282	P 3
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	T 3	313.722	313.055	312.000	309.500	307.722	307.444	307.917	308.000	308.055	T 3

STATOR F	PCT SPAN	95.81	92.01	86.21	69.91	49.21	29.51	14.11	9.31	4.51	PCT SPAN
	DIA	0.423	0.427	0.432	0.448	0.468	0.487	0.502	0.506	0.511	DIA
STATOR-L.E.	BETA 3	63.110	56.909	52.808	45.056	41.790	42.175	44.239	45.786	48.379	BETA 3
STATOR-T.E.	BETA 4	11.719	9.920	7.835	6.662	7.293	8.857	9.496	9.380	8.928	BETA 4
	V 3	209.10	211.85	214.36	217.98	215.20	208.61	203.02	197.79	191.87	V 3
	V 4	161.74	166.65	173.83	187.06	192.64	189.76	186.33	183.39	180.10	V 4
	VZ 3	94.57	115.66	129.57	153.93	160.28	154.28	145.03	137.50	127.04	VZ 3
	VZ 4	158.36	164.14	172.17	185.70	190.85	187.04	182.99	180.01	176.79	VZ 4
	V-THETA 3	186.49	177.48	170.74	154.23	143.25	139.77	141.22	141.33	142.99	V-THETA 3
	V-THETA 4	32.85	26.71	23.69	21.69	24.42	29.15	30.61	29.73	27.77	V-THETA 4
	M 3	0.6105	0.6198	0.6289	0.6431	0.6363	0.6156	0.5974	0.5809	0.5623	M 3
	M 4	0.4653	0.4806	0.5032	0.5460	0.5650	0.5563	0.5452	0.5361	0.5258	M 4
	TURN(PR)	51.391	46.988	44.967	38.379	34.451	33.230	34.621	36.273	39.307	TURN(PR)
	UUBAR	0.0361	0.0498	0.0379	0.0310	0.0385	0.0742	0.1190	0.1161	0.1043	UUBAR
	LOSS PARA	0.0119	0.0158	0.0123	0.0105	0.0137	0.0276	0.0459	0.0452	0.0411	LOSS PARA
	DFAC	0.4619	0.4415	0.4153	0.3511	0.3058	0.2933	0.2989	0.2996	0.3052	DFAC
	EFFP	0.9175	0.8869	0.9047	0.9000	0.8350	0.6290	0.3399	0.2720	0.2243	EFFP
	INCID	-1.891	-2.493	-2.999	-7.263	-10.865	-12.484	-13.424	-13.096	-12.022	INCID
	DEVM	16.968	15.919	13.633	11.408	11.384	12.836	13.455	12.531	11.171	DEVM
	P 3	12.006	12.166	12.304	12.581	12.690	12.610	12.544	12.424	12.282	P 3
	P 4	11.904	12.028	12.195	12.486	12.573	12.399	12.224	12.129	12.035	P 4
	T 3	313.722	313.055	312.000	309.500	307.722	307.444	307.917	308.000	308.055	T 3
	T 4	313.722	313.055	312.000	309.500	307.722	307.444	307.917	308.000	308.055	T 4

Table B-6. Blade Element Performance (Continued)
Stage F_1 Rotor F – Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 69.67 Equivalent Rotor Speed = 6922.00 Equivalent Weight Flow = 11.541 kg/sec
Hub Radial Distortion
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	95.79	91.71	86.89	70.41	49.21	29.10	13.80	9.00	4.70	PCT SPAN
	DIA	0.425	0.432	0.439	0.464	0.495	0.526	0.549	0.556	0.562	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	15.343	14.317	13.601	12.645	12.603	12.871	13.774	14.717	16.513	BETA 2
	V 1	49.95	54.99	62.45	80.16	98.79	109.62	105.36	102.13	98.82	V 1
	V 2	63.71	65.68	67.85	80.97	97.99	109.92	108.20	105.65	102.98	V 2
	VZ 1	49.95	54.99	62.45	80.13	98.69	109.63	105.09	101.85	98.53	VZ 1
	VZ 2	61.44	63.63	65.93	78.93	95.36	106.60	104.30	101.33	97.85	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	16.86	16.24	15.95	17.71	21.32	24.36	25.57	26.62	29.01	V-THETA 2
	M 1	0.1471	0.1620	0.1841	0.2369	0.2928	0.3262	0.3126	0.3029	0.2929	M 1
	M 2	0.1879	0.1937	0.2002	0.2393	0.2904	0.3264	0.3212	0.3135	0.3054	M 2
	TURN	-15.34	-14.32	-13.60	-12.63	-12.57	-12.80	-13.67	-14.59	-16.36	TURN
	UUBAR	0.1230	0.2025	0.2972	0.2254	0.1218	0.0487	0.0212	0.0283	0.0363	UUBAR
	DFAC	-0.140	-0.075	0.018	0.081	0.100	0.096	0.082	0.085	0.096	DFAC
	EFFP	0.8372	0.8805	0.8839	0.9389	-0.1584	0.0344	0.7286	0.7206	0.7110	EFFP
	INCID	5.9000	5.9200	5.9700	6.2500	6.6600	7.0000	7.3200	7.4200	7.4200	INCID
	DEVM	1.657	2.984	4.082	6.168	7.673	8.807	9.032	8.457	6.919	DEVM
	P 1	9.675	9.711	9.764	9.925	10.146	10.318	10.282	10.246	10.210	P 1
	P 2	9.657	9.675	9.696	9.839	10.075	10.282	10.268	10.228	10.189	P 2
	T 1	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 1
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	UUBAR FS										UUBAR FS
	P1 FS										P1 FS
	LOSS PARA FS										LOSS PARA FS
ROTOR F	PCT SPAN	95.01	89.99	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA	0.425	0.430	0.436	0.453	0.475	0.498	0.515	0.520	0.526	DIA
ROTOR -L.E.	BETA 2	12.318	11.678	11.148	10.386	10.223	10.340	11.076	11.846	13.270	BETA 2
ROTOR -T.E.	BETA 3	69.783	64.233	60.648	52.805	49.036	48.640	51.444	53.622	56.919	BETA 3
	BETA(PR) 2	60.493	60.426	60.120	56.287	51.804	49.212	50.522	51.447	52.285	BETA(PR) 2
	BETA(PR) 3	-26.592	-16.037	-9.975	3.215	12.746	18.269	22.023	23.590	26.078	BETA(PR) 3
	V 2	79.26	80.68	83.09	99.03	123.16	140.57	139.12	135.86	132.46	V 2
	V 3	201.29	201.32	201.23	197.66	190.83	186.53	180.74	177.57	172.84	V 3
	VZ 2	77.43	79.00	81.52	98.24	120.95	137.71	135.74	132.13	128.05	VZ 2
	VZ 3	69.50	87.42	98.61	119.46	125.01	123.07	112.42	105.10	94.15	VZ 3
	V-THETA 2	16.91	16.33	16.06	18.01	21.81	25.12	26.57	27.71	30.20	V-THETA 2
	V-THETA 3	188.72	181.10	175.35	157.41	143.99	139.79	141.05	142.67	144.53	V-THETA 3
	V(PR) 2	157.2	160.1	163.6	177.0	195.8	211.2	214.0	212.6	209.9	V(PR) 2
	V(PR) 3	78.2	91.4	100.2	119.7	128.4	130.0	121.8	115.3	105.4	V(PR) 3
	VTHETA PR2	-136.8	-139.2	-141.9	-147.2	-153.7	-154.6	-164.8	-165.8	-165.6	VTHETA PR2
	VTHETA PR3	54.8	25.1	17.3	-6.7	-28.3	-40.6	-45.5	-45.9	-46.1	VTHETA PR3
	U 2	153.73	155.55	157.94	165.24	175.54	184.72	191.36	193.51	195.79	U 2
	U 3	153.93	155.97	158.01	164.12	172.27	180.42	186.53	188.56	190.61	U 3
	M 2	0.2342	0.2384	0.2456	0.2962	0.3668	0.4203	0.4158	0.4058	0.3953	M 2
	M 3	0.5852	0.5858	0.5862	0.5776	0.5583	0.5452	0.5267	0.5168	0.5022	M 3
	M(PR) 2	0.4645	0.4731	0.4837	0.5248	0.5830	0.6315	0.6397	0.6348	0.6264	M(PR) 2
	M(PR) 3	0.2273	0.2661	0.2920	0.3499	0.3756	0.3800	0.3550	0.3354	0.3062	M(PR) 3
	TURN(PR)	86.912	76.377	70.083	53.060	39.020	30.880	28.433	27.796	26.159	TURN(PR)
	UUBAR	0.3511	0.2377	0.1560	0.0227	0.0309	0.0856	0.1274	0.1483	0.1714	UUBAR
	LOSS PARA	0.1011	0.0746	0.0510	0.0078	0.0111	0.0315	0.0474	0.0552	0.0633	LOSS PARA
	DFAC	0.8549	0.7656	0.7104	0.5955	0.5703	0.5909	0.6416	0.6733	0.7173	DFAC
	EFFP	0.8364	0.8724	0.9138	0.9892	0.9812	0.9162	0.8713	0.8599	0.8384	EFFP
	EFF	0.8304	0.8675	0.9104	0.9887	0.9805	0.9136	0.8673	0.8556	0.8335	EFF
	INCID	4.843	6.026	6.118	2.453	-2.706	-6.361	-6.318	-6.288	-6.914	INCID
	DEVM	7.481	10.149	10.035	11.213	10.524	8.710	10.619	12.566	16.327	DEVM
	P 2	9.657	9.675	9.696	9.839	10.075	10.282	10.268	10.228	10.189	P 2
	P 3	12.481	12.588	12.681	12.788	12.788	12.810	12.745	12.681	12.585	P 3
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	T 3	314.555	314.111	313.389	310.833	308.889	308.611	309.333	309.500	309.667	T 3
STATOR F	PCT SPAN	95.81	92.01	86.21	69.91	49.21	29.51	14.11	9.31	4.51	PCT SPAN
	DIA	0.423	0.427	0.432	0.448	0.468	0.487	0.502	0.506	0.511	DIA
STATOR-L.E.	BETA 3	70.066	63.764	59.798	51.720	47.872	47.527	50.258	52.390	55.589	BETA 3
STATOR-T.E.	BETA 4	16.546	15.205	13.333	10.387	9.417	10.180	11.091	11.304	11.473	BETA 4
	V 3	200.80	202.00	202.99	200.70	194.23	190.38	184.35	181.06	176.14	V 3
	V 4	121.77	126.76	134.65	144.45	146.11	147.29	144.18	142.11	138.42	V 4
	VZ 3	68.46	86.30	102.11	124.30	130.17	128.33	117.59	110.24	99.32	VZ 3
	VZ 4	116.72	122.31	131.00	142.01	143.97	144.62	140.89	138.64	134.81	VZ 4
	V-THETA 3	188.77	181.19	175.42	157.51	143.92	140.18	141.42	143.09	144.99	V-THETA 3
	V-THETA 4	34.68	33.24	31.05	26.03	23.88	25.97	27.62	27.71	27.36	V-THETA 4
	M 3	0.5837	0.5879	0.5917	0.5871	0.5688	0.5571	0.5378	0.5275	0.5123	M 3
	M 4	0.3466	0.3614	0.3850	0.4157	0.4220	0.4258	0.4160	0.4097	0.3986	M 4
	TURN(PR)	53.521	48.558	46.461	41.320	38.411	37.263	39.055	40.969	44.000	TURN(PR)
	UUBAR	0.0639	0.0680	0.0507	0.0241	0.0312	0.0528	0.0784	0.0783	0.0744	UUBAR
	LOSS PARA	0.0196	0.0212	0.0162	0.0081	0.0111	0.0196	0.0301	0.0303	0.0291	LOSS PARA
	DFAC	0.6394	0.6104	0.5713	0.5058	0.4726	0.4558	0.4632	0.4712	0.4853	DFAC
	EFFP	0.9103	0.9006	0.9201	0.9560	0.9365	0.8829	0.8186	0.8162	0.8235	EFFP
	INCID	5.066	4.362	3.992	-0.598	-4.783	-7.132	-7.402	-6.486	-4.800	INCID
	DEVM	21.795	21.203	19.131	15.131	13.506	14.155	15.043	14.445	13.700	DEVM
	P 3	12.481	12.588	12.681	12.788	12.788	12.810	12.745	12.681	12.585	P 3
	P 4	12.317	12.410	12.545	12.724	12.710	12.681	12.567	12.510	12.431	P 4
	T 3	314.555	314.111	313.389	310.833	308.889	308.611	309.333	309.500	309.667	T 3
	T 4	314.555	314.111	313.389	310.833	308.889	308.611	309.333	309.500	309.667	T 4

ORIGINAL PAGE IS
OF POOR QUALITY

Table B-6. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 70.12 Equivalent Rotor Speed = 6967.30 Equivalent Weight Flow = 9.973 kg/sec
Hub Radial Distortion
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	95.79	91.71	86.89	70.41	49.21	29.10	13.80	9.00	4.70	PCT SPAN
	DIA	0.425	0.432	0.439	0.464	0.495	0.526	0.549	0.556	0.562	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	15.656	15.060	14.339	12.589	12.301	12.811	13.807	14.728	16.086	BETA 2
	V 1	45.91	50.21	56.54	71.22	87.38	95.56	92.16	89.24	85.03	V 1
	V 2	56.02	58.69	59.43	71.30	85.48	94.48	92.57	90.60	87.80	V 2
	VZ 1	45.91	50.20	56.53	71.19	87.29	95.38	91.93	89.00	84.78	VZ 1
	VZ 2	53.94	56.66	57.57	69.52	83.28	91.64	89.22	86.90	83.61	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	15.12	15.28	14.72	15.52	18.16	20.84	21.92	22.84	24.11	V-THETA 2
	M 1	0.1352	0.1476	0.1666	0.2102	0.2585	0.2830	0.2728	0.2641	0.2514	M 1
	M 2	0.1651	0.1730	0.1752	0.2104	0.2528	0.2798	0.2741	0.2681	0.2598	M 2
	TURN	-15.66	-15.06	-14.34	-12.58	-12.27	-12.74	-13.70	-14.60	-15.94	TURN
	UUBAR	0.1136	0.1421	0.2080	0.2096	0.1377	0.0761	0.0751	0.0729	0.0644	UUBAR
	DFAC	-0.088	-0.046	0.055	0.089	0.110	0.107	0.102	0.102	0.100	DFAC
	EFFP	0.8124	0.7223	0.7627	0.8104	-0.4741	-0.4391	0.1089	0.3023	0.5138	EFFP
	INCID	5.9000	5.9200	5.9700	6.2500	6.6600	7.0000	7.3200	7.4200	7.4200	INCID
	DEVM	1.344	2.211	3.344	6.224	7.974	8.867	8.999	8.446	7.342	DEVM
	P 1	9.794	9.822	9.865	9.984	10.154	10.267	10.245	10.217	10.175	P 1
	P 2	9.780	9.801	9.808	9.921	10.090	10.224	10.207	10.182	10.147	P 2
	T 1	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 1
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	UUBAR FS										UUBAR FS
	P1 FS										P1 FS
	LOSS PARA FS										LOSS PARA FS
ROTOR F	PCT SPAN	95.01	89.99	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA	0.425	0.430	0.436	0.453	0.475	0.498	0.515	0.520	0.526	DIA
ROTOR -L.E.	BETA 2	12.567	12.330	11.779	10.379	10.046	10.400	11.221	11.974	13.057	BETA 2
ROTOR -T.E.	BETA 3	68.941	66.268	63.535	54.599	50.430	52.381	57.670	59.396	61.116	BETA 3
	BETA(PR) 2	64.073	63.538	63.756	60.209	56.445	54.540	55.930	56.740	57.815	BETA(PR) 2
	BETA(PR) 3	-22.845	-17.299	-11.581	0.637	13.286	19.990	24.671	26.125	27.999	BETA(PR) 3
	V 2	69.53	71.95	72.60	87.66	106.72	119.57	117.78	115.37	111.87	V 2
	V 3	200.27	198.89	198.43	201.12	188.35	179.30	172.41	171.19	169.68	V 3
	VZ 2	67.85	70.29	71.07	86.18	104.87	117.12	114.85	112.15	108.23	VZ 2
	VZ 3	71.89	70.47	69.03	116.48	119.90	109.30	92.07	87.02	81.84	VZ 3
	V-THETA 2	15.16	15.36	14.82	15.79	18.58	21.49	22.79	23.79	25.10	V-THETA 2
	V-THETA 3	188.71	181.90	177.29	163.40	145.09	141.84	145.46	147.12	148.34	V-THETA 3
	V(PR) 2	155.2	157.7	160.7	173.5	190.8	202.2	204.4	204.9	203.6	V(PR) 2
	V(PP) 3	79.1	84.2	91.0	116.6	123.4	116.7	101.8	97.4	93.2	V(PP) 3
	VTHETA PR2	-134.6	-141.2	-144.2	-158.5	-158.1	-164.4	-169.8	-171.0	-172.0	VTHETA PR2
	VTHETA PR3	31.8	24.9	18.2	-1.3	-28.3	-38.8	-42.3	-42.7	-43.5	VTHETA PR3
	U 2	154.73	156.57	158.07	166.33	176.69	186.93	192.61	194.77	197.07	U 2
	U 3	154.44	157.00	159.04	165.20	173.40	181.60	187.75	189.80	191.85	U 3
	M 2	0.2052	0.2124	0.2142	0.2563	0.3168	0.3558	0.3503	0.3430	0.3323	M 2
	M 3	0.5819	0.5774	0.5770	0.5868	0.5497	0.5219	0.4699	0.4958	0.4910	M 3
	M(PR) 2	0.4580	0.4656	0.4745	0.5132	0.5635	0.6016	0.6110	0.6092	0.6049	M(PR) 2
	M(PR) 3	0.2268	0.2446	0.2645	0.3401	0.3602	0.3396	0.2950	0.2821	0.2696	M(PR) 3
	TURN(PR)	87.780	80.746	75.324	59.559	43.125	34.498	31.211	30.574	29.788	TURN(PR)
	UUBAR	0.3805	0.3318	0.2621	0.0608	0.0601	0.1460	0.2209	0.2292	0.2299	UUBAR
	LOSS PARA	0.1150	0.1035	0.0851	0.0211	0.0215	0.0531	0.0806	0.0836	0.0835	LOSS PARA
	DFAC	0.6466	0.6118	0.7603	0.6228	0.5915	0.6495	0.7403	0.7649	0.7867	DFAC
	EFFP	0.8206	0.8372	0.8725	0.9669	0.9609	0.8761	0.8140	0.8098	0.8112	EFFP
	EFF	0.8140	0.8312	0.8677	0.9656	0.9595	0.8722	0.8082	0.8038	0.8052	EFF
	INCID	5.423	4.139	2.755	6.376	1.959	-1.026	-0.901	-0.985	-1.371	INCID
	DEVM	10.214	8.893	8.401	8.637	11.063	10.425	13.257	15.091	18.241	DEVM
	P 2	9.780	9.801	9.808	9.921	10.090	10.224	10.207	10.182	10.147	P 2
	P 3	12.604	12.657	12.734	13.045	12.888	12.756	12.664	12.664	12.657	P 3
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	T 3	314.778	314.444	313.889	312.444	309.778	309.722	310.833	311.222	311.500	T 3
STATOR F	PCT SPAN	95.81	92.01	86.21	69.91	49.21	29.51	14.11	9.31	4.51	PCT SPAN
	DIA	0.423	0.427	0.432	0.448	0.468	0.487	0.502	0.506	0.511	DIA
STATOR-L.E.	BETA 3	69.199	65.779	62.405	53.422	49.224	51.162	56.249	57.922	59.598	BETA 3
STATOR-T.E.	BETA 4	14.553	13.856	12.887	12.304	11.425	11.632	11.659	11.271	10.917	BETA 4
	V 3	194.78	194.56	200.14	204.27	191.66	182.87	175.72	174.46	172.86	V 3
	V 4	104.87	107.91	114.48	134.91	129.36	124.06	123.24	123.08	122.70	V 4
	VZ 3	70.95	81.67	92.70	121.70	125.07	114.51	97.45	92.48	87.32	VZ 3
	VZ 4	101.50	105.73	111.58	131.74	126.65	121.22	120.18	120.09	119.73	VZ 4
	V-THETA 3	188.78	181.90	177.36	164.00	145.02	142.23	145.84	147.56	148.82	V-THETA 3
	V-THETA 4	26.25	26.08	25.53	28.73	25.60	24.95	24.80	23.93	23.09	V-THETA 4
	M 3	0.5803	0.5800	0.5923	0.5967	0.5600	0.5329	0.5099	0.5058	0.5007	M 3
	M 4	0.2974	0.3093	0.3297	0.3864	0.3717	0.3561	0.3530	0.3523	0.3511	M 4
	TURN(PR)	54.646	51.922	49.514	41.107	37.748	39.450	44.489	46.546	48.574	TURN(PR)
	UUBAR	0.1028	0.1012	0.0971	0.0783	0.0743	0.0912	0.0753	0.0817	0.0850	UUBAR
	LOSS PARA	0.0318	0.0317	0.0311	0.0262	0.0262	0.0337	0.0288	0.0316	0.0333	LOSS PARA
	DFAC	0.7323	0.7080	0.6782	0.5676	0.5518	0.5668	0.5721	0.5789	0.5851	DFAC
	EFFP	0.8724	0.8911	0.8711	0.8773	0.8779	0.8471	0.8650	0.8517	0.8435	EFFP
	INCID	4.199	4.377	4.588	1.104	-3.430	-3.485	-1.402	-0.941	-0.779	INCID
	DEVM	19.803	19.855	18.685	17.048	15.512	15.604	15.600	14.413	13.147	DEVM
	P 3	12.604	12.657	12.734	13.045	12.868	12.756	12.664	12.664	12.657	P 3
	P 4	12.360	12.396	12.481	12.824	12.685	12.651	12.590	12.498	12.488	P 4
	T 3	314.778	314.444	313.889	312.444	309.778	309.722	310.833	311.222	311.500	T 3
	T 4	314.778	314.444	313.889	312.444	309.778	309.722	310.833	311.222	311.500	T 4

Table B-7. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 99.52 Equivalent Rotor Speed = 9888.25 Equivalent Weight Flow = 39.208 lb/sec
Hub Radial Distortion
U.S. Customary Units

INLET GUIDE VANE	PCT SPAN	95.79	91.71	86.89	70.41	49.21	29.10	13.80	9.00	4.70	PCT SPAN
	DIA	16.749	16.991	17.276	18.252	19.507	20.697	21.603	21.817	22.142	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	15.806	15.274	14.528	12.992	13.067	13.562	14.465	16.344	17.188	BETA 2
	V 1	259.81	277.47	302.49	388.54	503.48	584.45	573.01	547.83	525.56	V 1
	V 2	347.01	361.92	376.26	442.38	528.47	584.25	574.19	557.62	544.05	V 2
	VZ 1	259.80	277.45	302.47	388.39	502.96	583.37	571.58	546.34	524.01	Vz 1
	VZ 2	333.88	349.11	364.16	430.74	513.35	565.00	551.83	530.73	515.11	Vz 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	94.52	95.34	94.37	98.40	119.14	136.29	142.36	155.64	159.23	V-THETA 2
	M 1	0.2340	0.2501	0.2730	0.3523	0.4604	0.5384	0.5273	0.5029	0.4815	M 1
	M 2	0.3139	0.3276	0.3409	0.4026	0.4843	0.5383	0.5285	0.5124	0.4993	M 2
	TURN	-15.81	-15.27	-14.52	-12.92	-13.03	-13.49	-14.35	-16.21	-17.03	TURN
	UUBAR	0.0115	0.0	0.0337	-0.0100	-0.0227	0.0040	0.0397	0.0415	0.0379	UUBAR
	DFAC	-0.189	-0.166	-0.117	-0.033	0.051	0.103	0.110	0.113	0.107	DFAC
	EFFP	0.9858	0.9999	0.9439	1.0327	1.2538	-0.2324	0.1044	0.4917	0.6761	EFFP
	INCID	5.9000	5.9200	6.2500	6.6600	7.0000	7.3200	7.4200	7.4200	7.4200	INCID
	DEVM	1.194	2.027	3.155	5.881	7.210	8.120	8.345	8.843	8.250	DEVM
	P 1	12.928	13.017	13.140	13.643	14.558	15.473	15.490	15.261	15.072	P 1
	P 2	12.922	13.017	13.118	13.654	14.603	15.462	15.384	15.161	14.988	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	UUBAR FS										UUBAR FS
	P1 FS										P1 FS
	LOSS PARA FS										LOSS PARA FS
ROTOR F	PCT SPAN	95.01	89.99	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA	16.721	16.943	17.164	17.878	18.713	19.598	20.262	20.483	20.705	DIA
ROTOR -L.E.	BETA 2	12.423	12.184	11.624	10.226	9.818	9.442	10.161	11.728	12.476	BETA 2
ROTOR -T.E.	BETA 3	69.062	63.382	59.457	50.383	47.766	48.489	51.553	53.267	54.372	BETA 3
	BETA(PR) 2	55.479	54.961	54.396	50.401	44.857	40.625	42.216	43.658	44.075	BETA(PR) 2
	BETA(PR) 3	-23.916	-13.519	-7.568	4.317	12.286	18.630	21.180	22.257	23.898	BETA(PR) 3
	V 2	440.68	454.22	471.66	566.77	716.27	860.55	843.58	802.33	773.17	V 2
	V 3	931.21	930.76	933.26	940.08	911.18	871.04	855.37	846.52	836.16	V 3
	VZ 2	430.36	443.99	461.96	557.48	704.31	845.34	825.49	780.61	749.76	VZ 2
	VZ 3	332.46	416.54	474.14	599.28	611.98	576.41	530.78	505.22	485.98	VZ 3
	V-THETA 2	94.80	95.87	95.03	100.57	121.89	140.58	147.94	162.06	165.68	V-THETA 2
	V-THETA 3	868.87	831.17	803.55	723.96	674.11	651.25	668.55	676.69	678.10	V-THETA 3
	V(PR) 2	759.4	773.3	793.5	874.8	994.7	1116.5	1118.3	1082.7	1065.5	V(PR) 2
	V(PR) 3	366.0	430.7	478.8	601.4	627.4	610.2	571.8	548.7	534.5	V(PR) 3
	VTHETA PR2	-625.7	-633.2	-645.2	-673.9	-700.8	-725.2	-748.9	-744.9	-751.7	VTHETA PR2
	VTHETA PR3	147.4	100.2	63.0	-45.2	-133.3	-194.3	-205.7	-208.8	-215.2	VTHETA PR3
	U 2	720.49	729.03	740.21	774.46	822.70	865.76	896.87	906.92	917.62	U 2
	U 3	721.44	731.02	740.55	769.20	807.38	845.57	874.22	885.75	893.33	U 3
	M 2	0.4010	0.4138	0.4302	0.5213	0.6697	0.8211	0.8028	0.7589	0.7263	M 2
	M 3	0.8174	0.8167	0.8238	0.8371	0.8130	0.7738	0.7560	0.7471	0.7368	M 3
	M(PR) 2	0.6910	0.7044	0.7238	0.8045	0.9300	1.0654	1.0643	1.0241	1.0037	M(PR) 2
	M(PR) 3	0.3213	0.3788	0.4227	0.5355	0.5598	0.5421	0.5054	0.4847	0.4709	M(PR) 3
	TURN(PR)	79.235	68.406	61.955	46.072	32.531	21.934	20.964	21.330	21.123	TURN(PR)
	UUBAR	0.4895	0.3639	0.2646	0.0630	0.1156	0.2049	0.2387	0.2308	0.2301	UUBAR
	LOSS PARA	0.1441	0.1156	0.0870	0.0218	0.0415	0.0751	0.0894	0.0868	0.0865	LOSS PARA
	DFAC	0.8466	0.7542	0.6928	0.5584	0.5702	0.6272	0.6719	0.6825	0.6917	DFAC
	EFFP	0.7464	0.7895	0.8465	0.9560	0.9001	0.7470	0.7224	0.7418	0.7512	EFFP
	EFF	0.7305	0.7758	0.8362	0.9529	0.8941	0.7347	0.7087	0.7287	0.7383	EFF
	INCID	-0.171	0.561	0.395	-3.434	-9.654	-14.947	-14.627	-14.082	-14.130	INCID
	DEVM	10.144	12.654	12.440	12.314	10.065	9.069	9.779	11.238	14.146	DEVM
	P 2	12.922	13.017	13.118	13.654	14.603	15.462	15.384	15.161	14.988	P 2
	P 3	19.928	20.374	20.849	22.027	22.116	21.692	21.636	21.547	21.424	P 3
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	T 3	612.250	610.000	606.500	598.400	591.750	590.400	593.600	593.900	594.200	T 3
STATOR F	PCT SPAN	95.81	92.01	86.21	69.91	49.21	29.51	14.11	9.31	4.51	PCT SPAN
	DIA	16.659	16.803	17.023	17.641	18.426	19.173	19.757	19.939	20.121	DIA
STATOR-L.E.	BETA 3	69.687	62.539	57.749	47.916	45.376	46.315	49.340	51.033	52.190	BETA 3
STATOR-T.E.	BETA 4	5.185	5.661	6.389	6.961	6.360	7.066	8.851	9.283	9.507	BETA 4
	V 3	926.71	937.17	950.59	976.36	947.58	904.71	885.76	875.53	863.35	V 3
	V 4	738.92	762.87	801.42	871.29	888.88	874.60	880.44	874.67	861.73	V 4
	VZ 3	321.71	432.16	507.23	654.18	664.99	623.73	575.75	549.21	527.87	VZ 3
	VZ 4	735.86	759.06	796.28	864.42	882.33	865.83	866.22	858.74	844.52	VZ 4
	V-THETA 3	869.08	831.56	803.87	724.41	673.79	653.05	670.30	679.02	680.27	V-THETA 3
	V-THETA 4	66.77	75.25	89.16	105.53	98.35	107.32	134.89	140.36	141.43	V-THETA 4
	M 3	0.8129	0.8251	0.8413	0.8742	0.8501	0.8076	0.7861	0.7757	0.7635	M 3
	M 4	0.6331	0.6567	0.6952	0.7683	0.7906	0.7774	0.7808	0.7749	0.7619	M 4
	TURN(PR)	64.502	56.876	51.355	40.941	38.969	39.158	40.366	41.621	42.547	TURN(PR)
	UUBAR	0.1033	0.1065	0.0859	0.0788	0.0737	0.0944	0.0940	0.0963	0.1123	UUBAR
	LOSS PARA	0.0329	0.0342	0.0280	0.0268	0.0264	0.0353	0.0363	0.0375	0.0442	LOSS PARA
	DFAC	0.4799	0.4479	0.4048	0.3258	0.2828	0.2638	0.2462	0.2483	0.2555	DFAC
	EFFP	0.7746	0.7512	0.7694	0.7073	0.5324	-0.1257	-5.1739	-37.8020	-23.0092	EFFP
	INCID	4.687	3.137	1.942	-4.403	-7.279	-8.344	-8.321	-7.845	-8.207	INCID
	DEVM	10.434	11.661	12.188	11.707	10.453	11.048	12.813	12.434	11.747	DEVM
	P 3	19.928	20.374	20.849	22.027	22.116	21.692	21.636	21.547	21.424	P 3
	P 4	19.202	19.593	20.185	21.346	21.502	20.977	20.955	20.866	20.654	P 4
	T 3	612.250	610.000	606.500	598.400	591.750	590.400	593.600	593.900	594.200	T 3
	T 4	612.250	610.000	606.500	598.400	591.750	590.400	593.600	593.900	594.200	T 4

Table B-7. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 99.58 Equivalent Rotor Speed = 9892.77 Equivalent Weight Flow = 35.318 lb/sec
Hub Radial Distortion
U.S. Customary Units

INLET GUIDE VANE	PCT SPAN	95.79	91.71	86.89	70.41	49.21	29.10	13.80	9.00	4.70	PCT SPAN
	DIA	16.749	16.991	17.276	18.252	19.507	20.697	21.603	21.887	22.142	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	16.019	15.417	14.580	12.621	12.560	13.128	14.283	15.299	16.768	BETA 2
	V 1	236.36	241.00	252.12	337.16	452.34	504.62	503.56	480.26	459.71	V 1
	V 2	299.90	307.75	318.83	385.34	461.70	508.71	503.82	488.88	476.27	V 2
	VZ 1	236.36	240.99	252.09	337.04	451.87	503.70	502.30	478.96	458.36	VZ 1
	VZ 2	288.25	296.65	308.50	375.66	449.39	492.82	484.59	467.67	453.84	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	82.76	81.80	80.24	84.11	100.12	114.94	123.37	127.93	136.74	V-THETA 2
	M 1	0.2127	0.2169	0.2270	0.3048	0.4120	0.4615	0.4605	0.4384	0.4189	M 1
	M 2	0.2706	0.2778	0.2879	0.3493	0.4208	0.4654	0.4607	0.4465	0.4365	M 2
	TURN	-16.02	-15.42	-14.58	-12.61	-12.52	-13.06	-14.17	-15.17	-16.61	TURN
	UUBAR	0.0784	0.0502	0.0228	-0.0250	0.0469	0.0157	0.0628	0.0580	0.0382	UUBAR
	DFAC	-0.128	-0.140	-0.135	-0.039	0.074	0.092	0.110	0.105	0.099	DFAC
	EFFP	0.8881	0.9279	0.9641	1.0847	0.4895	0.5318	0.0177	0.4034	0.6993	EFFP
	INCID	5.9000	5.9200	5.9700	6.2500	6.6600	7.0000	7.3200	7.4200	7.4200	INCID
	DEVM	0.982	1.885	3.103	6.191	7.715	8.551	8.526	7.880	6.667	DEVM
	P 1	13.377	13.410	13.464	13.887	14.689	15.220	15.307	15.123	14.971	P 1
	P 2	13.345	13.388	13.453	13.908	14.613	15.188	15.177	15.014	14.906	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	UUBAR FS										UUBAR FS
	PI FS										PI FS
	LOSS PARA FS										LOSS PARA FS
ROTOR F	PCT SPAN	95.01	89.99	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA	16.721	16.943	17.164	17.878	18.713	19.598	20.262	20.483	20.705	DIA
ROTOR -L.E.	BETA 2	12.702	12.422	11.798	10.149	9.797	9.941	10.815	11.671	12.815	BETA 2
ROTOR -T.E.	BETA 3	70.390	68.287	65.622	55.210	52.251	52.981	56.191	58.086	60.503	BETA 3
	BETA(PR) 2	59.998	60.010	59.613	55.271	50.542	47.662	46.888	50.203	51.103	BETA(PR) 2
	BETA(PR) 3	-27.616	-20.599	-13.745	2.685	12.926	19.390	22.691	24.240	26.178	BETA(PR) 3
	V 2	377.51	382.41	395.24	485.64	603.21	689.61	687.33	662.71	646.22	V 2
	V 3	942.54	926.49	914.97	907.69	867.99	838.36	823.69	814.64	804.74	V 3
	VZ 2	368.27	373.45	386.87	477.80	593.18	676.42	671.18	644.90	625.83	VZ 2
	VZ 3	316.06	342.50	377.59	517.78	531.03	504.12	457.58	430.09	396.60	VZ 3
	V-THETA 2	83.00	82.26	80.81	85.53	102.43	118.56	126.21	133.21	142.36	V-THETA 2
	V-THETA 3	887.11	860.08	833.25	745.27	685.87	668.52	683.29	690.53	699.29	V-THETA 3
	V(PR) 2	736.5	747.1	764.8	838.8	934.2	1010.2	1023.4	1010.3	999.5	V(PR) 2
	V(PR) 3	358.4	367.7	389.1	516.7	545.7	536.1	498.2	476.0	443.2	V(PR) 3
	VTHETA PR2	-637.8	-647.1	-659.7	-689.3	-720.7	-747.0	-769.1	-774.1	-775.7	VTHETA PR2
	VTHETA PR3	165.3	128.7	92.4	-24.3	-121.9	-177.4	-191.3	-193.6	-194.5	VTHETA PR3
	U 2	720.82	729.36	740.54	774.62	823.08	866.16	897.28	907.34	918.04	U 2
	U 3	721.77	731.35	740.89	769.55	807.75	845.95	874.62	884.16	893.74	U 3
	M 2	0.3421	0.3466	0.3585	0.4435	0.5568	0.6427	0.6404	0.6157	0.5992	M 2
	M 3	0.8259	0.8111	0.8015	0.8007	0.7665	0.7380	0.7216	0.7124	0.7020	M 3
	M(PR) 2	0.6673	0.6772	0.6938	0.7660	0.8623	0.9414	0.9535	0.9386	0.9268	M(PR) 2
	M(PR) 3	0.3144	0.3219	0.3408	0.4576	0.4819	0.4719	0.4364	0.4144	0.3866	M(PR) 3
	TURN(PR)	87.438	80.503	73.342	52.573	37.577	28.411	26.131	25.904	24.977	TURN(PR)
	UUBAR	0.3281	0.2771	0.2209	0.0369	0.0780	0.1459	0.1791	0.1827	0.1867	UUBAR
	LOSS PARA	0.0936	0.0847	0.0712	0.0135	0.0279	0.0532	0.0664	0.0677	0.0696	LOSS PARA
	DFAC	0.8647	0.8485	0.8176	0.6521	0.6421	0.6763	0.7270	0.7508	0.7811	DFAC
	EFFP	0.8468	0.8613	0.8863	0.9741	0.9443	0.8649	0.8359	0.8401	0.8364	EFFP
	EFF	0.8354	0.8510	0.8778	0.9721	0.9406	0.8567	0.8259	0.8302	0.8262	EFF
	INCID	4.348	5.610	5.612	1.437	-3.969	-7.711	-7.954	-7.533	-8.098	INCID
	DEVM	6.461	5.608	6.269	10.684	10.705	9.828	11.285	13.213	16.425	DEVM
	P 2	13.345	13.388	13.453	13.908	14.613	15.188	15.177	15.014	14.906	P 2
	P 3	22.201	22.304	22.472	23.280	23.166	23.069	23.090	23.004	22.906	P 3
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	T 3	615.900	614.400	612.000	603.300	596.300	595.500	598.700	599.700	600.700	T 3
STATOR F	PCT SPAN	95.81	92.01	86.21	69.91	49.21	29.51	14.11	9.31	4.51	PCT SPAN
	DIA	16.659	16.883	17.023	17.641	18.426	19.173	19.757	19.939	20.121	DIA
STATOR-L.E.	BETA 3	71.116	67.318	63.671	52.900	50.039	50.811	53.916	55.759	58.096	BETA 3
STATOR-T.E.	BETA 4	10.404	10.381	10.315	10.861	10.165	10.527	10.450	11.049	11.140	BETA 4
	V 3	937.80	932.63	930.12	935.21	895.12	866.24	849.38	839.49	828.06	V 3
	V 4	525.67	529.17	546.82	608.30	623.47	621.00	625.94	626.43	626.17	V 4
	VZ 3	303.52	359.64	412.52	563.99	574.45	546.52	499.27	471.41	430.73	VZ 3
	VZ 4	517.00	520.45	537.88	597.09	612.95	609.08	611.94	611.67	610.12	VZ 4
	V-THETA 3	887.33	860.49	833.59	745.73	685.54	670.37	685.08	692.59	701.52	V-THETA 3
	V-THETA 4	94.93	95.34	97.90	114.56	109.90	113.18	118.39	119.44	120.22	V-THETA 4
	M 3	0.8212	0.8172	0.8165	0.8283	0.7934	0.7654	0.7466	0.7302	0.7244	M 3
	M 4	0.4404	0.4440	0.4604	0.5186	0.5356	0.5337	0.5367	0.5366	0.5359	M 4
	TURN(PR)	60.712	56.936	53.352	42.026	39.832	40.202	42.859	44.598	46.845	TURN(PR)
	UUBAR	0.0682	0.0746	0.0721	0.0700	0.0475	0.0643	0.0797	0.0794	0.0794	UUBAR
	LOSS PARA	0.0214	0.0237	0.0233	0.0235	0.0168	0.0239	0.0306	0.0272	0.0252	LOSS PARA
	DFAC	0.7101	0.6990	0.6729	0.5819	0.5374	0.5290	0.5280	0.5279	0.5267	DFAC
	EFFP	0.9202	0.9115	0.9115	0.9036	0.9260	0.8922	0.8565	0.8695	0.8852	EFFP
	INCID	6.116	7.916	7.865	0.581	-2.615	-3.846	-3.739	-3.110	-2.286	INCID
	DEVM	15.654	15.380	16.113	15.605	14.253	14.502	14.903	14.192	13.370	DEVM
	P 3	22.201	22.304	22.472	23.280	23.166	23.069	23.090	23.004	22.906	P 3
	P 4	21.659	21.714	21.898	22.689	22.792	22.592	22.521	22.516	22.505	P 4
	T 3	615.900	614.400	612.000	603.300	596.300	595.500	598.700	599.700	600.700	T 3
	T 4	615.900	614.400	612.000	603.300	596.300	595.500	598.700	599.700	600.700	T 4

Table B-7. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 99.55 Equivalent Rotor Speed = 9891.19 Equivalent Weight Flow = 33.062 lb/sec
Hub Radial Distortion
U.S. Customary Units

INLET GUIDE VANE	PCT SPAN	95.79	91.71	86.89	70.41	49.21	29.10	13.80	9.00	4.70	PCT SPAN
	DIA	16.749	16.991	17.276	18.252	19.507	20.697	21.603	21.887	22.142	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	16.058	14.994	14.277	13.044	12.765	13.196	13.955	14.974	16.626	BETA 2
	V 1	242.22	249.31	264.33	331.15	425.87	465.01	461.81	449.29	425.54	V 1
	V 2	277.05	285.65	293.46	348.37	422.95	470.81	463.39	451.15	440.67	V 2
	VZ 1	242.21	249.30	264.30	331.02	425.49	464.15	460.65	442.08	424.28	VZ 1
	VZ 2	266.24	275.90	284.73	339.05	411.32	455.99	446.33	432.24	418.47	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	76.63	73.90	72.25	78.55	93.34	106.91	110.91	115.61	124.96	V-THETA 2
	M 1	0.2180	0.2244	0.2381	0.2993	0.3871	0.4239	0.4209	0.4035	0.3868	M 1
	M 2	0.2497	0.2575	0.2647	0.3151	0.3844	0.4294	0.4224	0.4109	0.4010	M 2
	TURN	-16.06	-14.99	-14.27	-13.03	-12.75	-13.13	-13.85	-14.85	-16.47	TURN
	UUBAR	0.1207	0.1137	0.1512	0.1010	0.0815	-0.0061	0.0492	0.0470	0.0366	UUBAR
	DFAC	-0.016	-0.026	0.001	0.046	0.100	0.088	0.105	0.102	0.102	DFAC
	EFFP	0.7227	0.7376	0.6116	0.5228	-0.2170	1.2877	0.1306	0.4494	0.6783	EFFP
	INCID	5.9000	5.9200	5.9700	6.2500	6.6600	7.0000	7.3200	7.4200	7.4200	INCID
	DEVM	0.943	2.307	3.406	5.769	7.491	8.484	8.852	8.202	6.807	DEVM
	P 1	13.632	13.675	13.745	14.093	14.736	15.122	15.175	15.047	14.929	P 1
	P 2	13.579	13.621	13.664	14.007	14.618	15.132	15.090	14.972	14.875	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	UUBAR FS										UUBAR FS
	P1 FS										P1 FS
	LOSS PARA FS										LOSS PARA FS
ROTOR F	PCT SPAN	95.01	89.99	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA	16.721	16.943	17.164	17.828	18.713	19.598	20.262	20.483	20.705	DIA
ROTOR -L.E.	BETA 2	12.778	12.125	11.598	10.572	10.116	10.208	10.815	11.652	12.943	BETA 2
ROTOR -T.E.	BETA 3	68.105	66.812	65.162	57.156	52.314	53.056	57.789	59.618	62.400	BETA 3
	BETA(PR) 2	62.238	62.160	61.987	58.370	53.658	50.981	52.341	53.427	54.301	BETA(PR) 2
	BETA(PR) 3	-26.470	-20.373	-14.422	-0.293	11.557	18.229	22.571	24.192	26.562	BETA(PR) 3
	V 2	347.52	353.79	362.41	435.57	544.78	624.85	617.92	599.83	584.81	V 2
	V 3	973.35	946.82	926.74	919.05	881.89	849.29	820.29	812.34	800.56	V 3
	VZ 2	338.91	345.89	354.99	427.95	535.19	612.39	603.40	583.76	566.08	VZ 2
	VZ 3	362.58	372.48	389.21	498.35	538.77	509.80	436.59	410.24	370.37	VZ 3
	V-THETA 2	76.86	74.31	72.86	76.87	95.49	110.28	115.26	120.38	130.09	V-THETA 2
	V-THETA 3	902.19	869.56	840.87	771.98	697.45	677.92	693.00	699.72	708.44	V-THETA 3
	V(PR) 2	727.6	740.7	756.1	816.2	903.8	974.4	989.9	982.0	972.5	V(PR) 2
	V(PR) 3	407.5	399.3	402.3	498.7	550.8	538.4	474.9	452.0	416.3	V(PR) 3
	VTHETA PR2	-643.8	-654.9	-667.6	-694.8	-727.5	-755.7	-781.9	-786.8	-787.8	VTHETA PR2
	VTHETA PR3	180.5	138.3	100.1	2.5	-110.2	-167.9	-181.5	-184.3	-185.2	VTHETA PR3
	U 2	720.70	729.25	740.43	774.69	822.95	866.02	897.14	907.19	917.89	U 2
	U 3	721.65	731.23	740.77	769.43	807.67	845.82	874.48	884.02	893.60	U 3
	M 2	0.3143	0.3201	0.3281	0.3962	0.5000	0.5781	0.5712	0.5535	0.5388	M 2
	M 3	0.8547	0.8296	0.8117	0.8096	0.7787	0.7470	0.7160	0.7078	0.6959	M 3
	M(PR) 2	0.6581	0.6702	0.6845	0.7424	0.8295	0.9014	0.9151	0.9061	0.8960	M(PR) 2
	M(PR) 3	0.3578	0.3499	0.3523	0.4393	0.4864	0.4736	0.4145	0.3938	0.3619	M(PR) 3
	TURN(PR)	88.537	82.427	76.404	58.650	42.062	32.691	29.708	29.181	27.697	TURN(PR)
	UUBAR	0.3156	0.2847	0.2503	0.0789	0.0615	0.1368	0.2113	0.2159	0.2265	UUBAR
	LOSS PARA	0.0910	0.0872	0.0804	0.0274	0.0221	0.0503	0.0783	0.0800	0.0833	LOSS PARA
	DFAC	0.8056	0.8122	0.8049	0.6817	0.6319	0.6691	0.7504	0.7751	0.8118	DFAC
	EFFP	0.8578	0.8609	0.8765	0.9628	0.9653	0.8851	0.8209	0.8237	0.8168	EFFP
	EFF	0.8469	0.8504	0.8672	0.9599	0.9629	0.8777	0.8098	0.8126	0.8053	EFF
	INCID	6.588	7.760	7.996	4.537	-0.851	-4.589	-4.497	-4.304	-4.894	INCID
	DEVM	7.602	5.833	5.592	7.707	9.338	8.670	11.165	13.165	16.809	DEVM
	P 2	13.579	13.621	13.664	14.007	14.618	15.132	15.090	14.972	14.875	P 2
	P 3	23.042	22.945	22.913	23.738	23.706	23.513	23.170	23.122	22.988	P 3
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	T 3	618.600	616.700	613.900	606.600	598.500	598.000	602.200	603.100	604.000	T 3
STATOR F	PCT SPAN	95.81	92.01	86.21	69.91	49.29	29.51	14.11	9.31	4.51	PCT SPAN
	DIA	16.659	16.803	17.023	17.641	18.426	19.173	19.757	19.939	20.121	DIA
STATOR-L.E.	BETA 3	68.848	65.813	63.152	54.566	49.982	50.802	55.426	57.194	59.861	BETA 3
STATOR-T.E.	BETA 4	2.311	2.393	2.765	7.711	9.784	10.346	10.784	10.851	10.911	BETA 4
	V 3	967.60	953.71	942.89	948.26	910.99	878.54	845.40	836.55	823.27	V 3
	V 4	549.43	545.37	543.02	606.87	622.12	624.65	617.65	619.38	622.56	V 4
	VZ 3	349.15	390.74	425.80	549.65	585.33	554.39	478.86	452.40	412.62	VZ 3
	VZ 4	548.95	544.83	542.28	601.07	612.34	613.01	604.17	605.18	607.47	VZ 4
	V-THETA 3	902.41	869.97	841.21	772.45	697.11	679.79	694.82	701.81	710.70	V-THETA 3
	V-THETA 4	22.15	22.77	26.19	81.38	105.60	111.91	115.07	116.00	117.10	V-THETA 4
	M 3	0.8489	0.8264	0.8278	0.8389	0.8077	0.7757	0.7403	0.7311	0.7177	M 3
	M 4	0.4601	0.4573	0.4563	0.5158	0.5333	0.5358	0.5275	0.5287	0.5311	M 4
	TURN(PR)	66.537	63.418	60.383	46.841	40.155	40.373	44.537	46.233	48.844	TURN(PR)
	UUBAR	0.1089	0.1042	0.1098	0.1100	0.0959	0.0889	0.0849	0.0798	0.0562	UUBAR
	LOSS PARA	0.0348	0.0358	0.0360	0.0373	0.0340	0.0330	0.0326	0.0309	0.0220	LOSS PARA
	DFAC	0.7234	0.7163	0.7088	0.6107	0.5532	0.5361	0.5416	0.5407	0.5363	DFAC
	EFFP	0.8718	0.8760	0.8677	0.8515	0.8556	0.8537	0.8496	0.8537	0.8911	EFFP
	INCID	3.848	6.411	7.347	2.248	-2.673	-3.856	-2.226	-1.672	-0.515	INCID
	DEVM	7.561	8.393	8.564	12.457	13.873	14.321	14.737	13.995	13.141	DEVM
	P 3	23.042	22.945	22.913	23.738	23.706	23.513	23.170	23.122	22.988	P 3
	P 4	22.099	22.066	22.002	22.774	22.913	22.827	22.570	22.570	22.613	P 4
	T 3	618.600	616.700	613.900	606.600	598.500	598.000	602.200	603.100	604.000	T 3
	T 4	618.600	616.700	613.900	606.600	598.500	598.000	602.200	603.100	604.000	T 4

Table B-7. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 84.87 Equivalent Rotor Speed = 8432.45 Equivalent Weight Flow = 35.800 lb/sec
Hub Radial Distortion
U.S. Customary Units

INLET GUIDE VANE	PCT SPAN	95.79	91.71	86.89	70.41	49.21	29.10	13.80	9.00	4.70	PCT SPAN
	DIA	16.749	16.991	17.276	18.252	19.507	20.697	21.603	21.887	22.142	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	16.025	14.638	13.710	12.673	12.731	13.213	14.375	15.768	17.603	BETA 2
	V 1	270.78	291.83	319.66	407.40	492.20	535.11	519.59	496.63	470.61	V 1
	V 2	308.01	319.66	333.16	395.56	475.72	529.26	525.41	511.36	494.78	V 2
	VZ 1	270.77	291.82	319.64	407.25	491.69	534.13	518.28	495.28	475.20	VZ 1
	VZ 2	296.03	309.26	323.60	385.55	462.73	512.56	509.15	488.08	467.44	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	85.02	80.78	78.94	86.69	104.54	120.34	129.46	137.82	148.30	V-THETA 2
	M 1	0.2440	0.2632	0.2887	0.3699	0.4497	0.4907	0.4758	0.4539	0.4349	M 1
	M 2	0.2780	0.2887	0.3011	0.3588	0.4341	0.4851	0.4814	0.4679	0.4521	M 2
	TURN	-16.02	-14.64	-13.71	-12.66	-12.69	-13.14	-14.26	-15.64	-17.44	TURN
	UUBAR	0.2611	0.2923	0.3202	0.2731	0.1555	0.0514	0.0347	0.0273	0.0477	UUBAR
	DFAC	-0.011	0.016	0.058	0.117	0.124	0.110	0.101	0.098	0.108	DFAC
	EFFP	0.5352	0.4121	0.2169	-0.2822	-0.8430	-0.8774	0.4176	0.7068	0.6386	EFFP
	INCID	5.9000	5.9200	5.9700	6.2500	6.6600	7.0000	7.3200	7.4200	7.4200	INCID
	DEVM	0.976	2.663	3.973	6.140	7.545	8.468	8.435	7.414	5.838	DEVM
	P 1	13.275	13.383	13.524	14.005	14.768	15.266	15.222	15.039	14.887	P 1
	P 2	13.134	13.199	13.280	13.719	14.471	15.147	15.147	14.984	14.801	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	UUBAR FS										UUBAR FS
	P1 FS										P1 FS
	LOSS PARA FS										LOSS PARA FS
ROTOR F	PCT SPAN	95.01	89.99	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA	16.721	16.943	17.164	17.874	18.713	19.598	20.262	20.483	20.705	DIA
ROTOR -L.E.	BETA 2	12.689	11.777	11.070	10.163	9.867	9.854	10.708	11.848	13.312	BETA 2
ROTOR -T.E.	BETA 3	64.700	57.849	54.101	46.173	43.039	44.369	47.016	48.558	50.962	BETA 3
	BETA(PR) 2	54.405	54.216	53.630	49.330	44.041	40.678	41.536	42.641	43.908	BETA(PR) 2
	BETA(PR) 3	-20.256	-9.930	-4.794	4.766	11.642	17.256	19.466	20.932	22.284	BETA(PR) 3
	V 2	386.24	397.95	414.06	499.82	625.42	728.33	728.38	703.37	675.12	V 2
	V 3	825.42	828.68	830.31	842.15	827.24	784.08	763.17	753.50	736.12	V 3
	VZ 2	376.76	389.57	406.33	491.72	614.38	714.59	711.51	684.04	657.53	VZ 2
	VZ 3	352.26	440.27	486.69	582.98	604.06	559.48	519.06	497.41	463.66	VZ 3
	V-THETA 2	85.28	81.22	79.50	88.15	106.95	124.12	134.55	143.50	154.40	V-THETA 2
	V-THETA 3	745.22	700.47	672.34	607.35	564.06	547.30	556.94	563.38	571.80	V-THETA 3
	V(PR) 2	650.7	666.2	685.2	794.7	856.3	944.6	953.8	933.2	909.1	V(PR) 2
	V(PR) 3	378.0	449.4	488.9	585.4	617.8	587.7	554.8	533.3	504.0	V(PR) 3
	VTHETA PR2	-529.1	-540.5	-551.7	-572.3	-594.6	-614.2	-630.3	-629.4	-628.1	VTHETA PR2
	VTHETA PR3	130.0	77.1	40.8	-48.6	-124.5	-173.8	-168.6	-140.3	-140.6	VTHETA PR3
	U 2	614.42	621.70	631.23	660.44	701.58	738.30	764.83	773.40	782.52	U 2
	U 3	615.22	623.39	631.52	655.95	688.52	721.08	745.51	753.64	761.81	U 3
	M 2	0.3520	0.3611	0.3761	0.4569	0.5786	0.6820	0.6821	0.6668	0.6481	M 2
	M 3	0.7318	0.7365	0.7401	0.7565	0.7491	0.7029	0.6814	0.6716	0.6567	M 3
	M(PR) 2	0.5900	0.6045	0.6224	0.6899	0.7923	0.8846	0.8951	0.8712	0.8456	M(PR) 2
	M(PR) 3	0.3351	0.3994	0.4358	0.5259	0.5564	0.5269	0.4954	0.4773	0.4484	M(PR) 3
	TURN(PR)	74.521	64.092	58.416	44.553	32.357	23.357	21.493	21.632	21.553	TURN(PR)
	UUBAR	0.3620	0.2068	0.1092	-0.0650	-0.0111	0.1332	0.1716	0.1691	0.1742	UUBAR
	LOSS PARA	0.1094	0.0866	0.0361	-0.0225	-0.0040	0.0492	0.0648	0.0642	0.0663	LOSS PARA
	DFAC	0.7461	0.6296	0.5735	0.4617	0.4717	0.5479	0.5924	0.6052	0.6301	DFAC
	EFFP	0.8182	0.8727	0.9333	1.0593	1.0301	0.8319	0.7342	0.7948	0.7960	EFFP
	EFF	0.8090	0.8660	0.9297	1.0626	1.0316	0.8253	0.7761	0.7869	0.7902	EFF
	INCID	-1.245	-0.184	-0.372	-4.505	-10.471	-14.894	-15.307	-15.098	-15.297	INCID
	DEVM	13.784	16.225	15.211	12.762	9.422	7.699	8.570	9.919	12.550	DEVM
	P 2	13.134	13.199	13.280	13.719	14.471	15.147	15.147	14.984	14.801	P 2
	P 3	18.630	18.960	19.258	20.069	20.318	19.831	19.669	19.556	19.355	P 3
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	T 3	566.100	564.000	561.200	574.750	569.900	569.000	570.500	570.800	571.000	T 3
STATOR F	PCT SPAN	95.81	92.01	86.21	69.91	49.21	29.51	14.11	9.31	4.51	PCT SPAN
	DIA	16.659	16.803	17.023	17.641	18.426	19.173	19.757	19.939	20.121	DIA
STATOR-L.E.	BETA 3	64.987	57.506	53.116	44.762	41.549	42.945	45.566	47.086	49.480	BETA 3
STATOR-T.E.	BETA 4	8.228	8.158	8.017	7.771	8.036	9.053	9.621	9.639	9.522	BETA 4
	V 3	822.55	832.76	841.01	863.04	850.94	807.19	784.19	773.83	756.86	V 3
	V 4	692.38	686.08	688.12	752.74	765.66	739.60	729.94	722.35	714.00	V 4
	VZ 3	347.80	449.81	504.72	612.37	636.15	589.65	547.47	525.35	490.27	VZ 3
	VZ 4	635.74	653.32	681.25	745.43	757.22	728.62	716.59	708.47	699.70	VZ 4
	V-THETA 3	745.40	700.80	672.62	667.73	563.79	548.81	556.40	565.06	573.62	V-THETA 3
	V-THETA 4	91.93	93.66	95.95	101.72	106.91	116.09	121.48	120.32	117.37	V-THETA 4
	M 3	0.7290	0.7405	0.7507	0.7775	0.7659	0.7257	0.7020	0.6916	0.6749	M 3
	M 4	0.5579	0.5553	0.6031	0.6665	0.6842	0.6594	0.6491	0.6417	0.6335	M 4
	TURN(PR)	56.759	49.146	45.094	36.996	33.468	33.805	35.624	37.316	39.818	TURN(PR)
	UUBAR	0.0439	0.0551	0.0432	0.0278	0.0625	0.0923	0.1256	0.1324	0.1254	UUBAR
	LOSS PARA	0.0139	0.0176	0.0140	0.0094	0.0223	0.0344	0.0484	0.0515	0.0493	LOSS PARA
	DFAC	0.4735	0.4441	0.4079	0.3297	0.2957	0.2689	0.2907	0.2976	0.3016	DFAC
	EFFP	0.9075	0.8786	0.8959	0.9078	0.7377	0.5265	0.2171	0.1376	0.0896	EFFP
	INCID	-0.014	-2.097	-2.691	-7.537	-11.106	-11.714	-12.096	-11.745	-10.920	INCID
	DEVM	13.478	14.157	13.815	12.517	12.127	13.031	13.580	12.789	11.761	DEVM
	P 3	18.630	18.960	19.258	20.069	20.318	19.831	19.669	19.556	19.355	P 3
	P 4	18.392	18.641	18.998	19.886	19.907	19.290	18.977	18.847	18.717	P 4
	T 3	566.100	564.000	561.200	574.750	569.900	569.000	570.500	570.800	571.000	T 3
	T 4	586.100	584.000	581.200	574.750	569.900	569.000	570.500	570.800	571.000	T 4

Table B-7. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 85.02 Equivalent Rotor Speed = 8447.75 Equivalent Weight Flow = 30.710 lb/sec
Hub Radial Distortion
U.S. Customary Units

INLET GUIDE VANE	PCT SPAN	95.79	91.71	86.89	70.41	49.21	29.10	13.80	9.00	4.76	PCT SPAN
	DIA	16.749	16.991	17.276	18.252	19.507	20.697	21.603	21.887	22.142	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	15.425	14.427	13.669	12.713	12.598	12.882	13.937	15.021	15.737	BETA 2
	V 1	230.93	231.58	240.58	322.78	399.16	440.96	433.22	410.17	400.91	V 1
	V 2	265.57	269.80	279.95	336.67	397.04	441.97	437.58	425.71	413.42	V 2
	VZ 1	230.93	231.58	240.56	322.66	398.76	440.15	432.14	415.04	399.73	VZ 1
	VZ 2	256.00	261.27	271.97	326.15	386.40	428.59	421.51	407.77	394.33	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	70.63	67.22	66.14	73.58	86.36	98.02	104.60	109.42	111.12	V-THETA 2
	M 1	0.2077	0.2083	0.2165	0.2916	0.3622	0.4013	0.3940	0.3780	0.3638	M 1
	M 2	0.2392	0.2431	0.2523	0.3025	0.3602	0.4022	0.3981	0.3870	0.3755	M 2
	TURN	-15.42	-14.43	-13.67	-12.70	-12.56	-12.81	-13.83	-14.89	-15.59	TURN
	UUBAR	0.1166	0.1030	0.0714	0.1168	0.0829	0.0200	0.0311	0.0301	0.0406	UUBAR
	DFAC	-0.027	-0.048	-0.052	0.058	0.098	0.095	0.098	0.098	0.099	DFAC
	EFFP	0.7380	0.7796	0.8352	0.3995	-0.1968	0.1961	0.4101	0.6215	0.6227	EFFP
	INCID	5.9000	5.9200	5.9700	6.2500	6.6600	7.0000	7.3200	7.4200	7.4200	INCID
	DEVM	1.576	2.874	4.014	6.100	7.678	8.797	8.870	8.156	7.689	DEVM
	P 1	13.769	13.785	13.827	14.219	14.715	15.085	15.091	14.980	14.885	P 1
	P 2	13.722	13.743	13.796	14.123	14.610	15.054	15.043	14.937	14.832	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	UUBAR FS										UUBAR FS
	P1 FS										P1 FS
	LOSS PARA FS										LOSS PARA FS
ROTOR F	PCT SPAN	95.01	89.99	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA	16.721	16.943	17.164	17.828	18.713	19.598	20.262	20.483	20.705	DIA
ROTOR -L.E.	BETA 2	12.299	11.695	11.129	10.332	10.046	10.093	10.922	11.810	12.386	BETA 2
ROTOR -T.E.	BETA 3	67.894	63.451	60.401	53.677	49.223	49.268	52.859	54.709	56.230	BETA 3
	BETA(PR) 2	59.180	59.541	59.101	55.034	50.940	48.348	49.412	50.493	51.752	BETA(PR) 2
	BETA(PR) 3	-24.003	-15.403	-9.928	2.181	12.866	18.986	22.037	23.729	25.427	BETA(PR) 3
	V 2	332.58	333.45	345.09	417.37	507.50	579.31	577.08	560.24	542.04	V 2
	V 3	813.00	810.51	808.16	793.61	761.53	740.36	718.45	706.89	694.29	V 3
	VZ 2	324.95	326.53	338.59	410.39	498.68	567.96	563.32	544.91	526.78	VZ 2
	VZ 3	305.62	361.86	399.08	469.96	496.99	482.39	432.96	407.58	384.06	VZ 3
	V-THETA 2	70.85	67.59	66.60	74.82	88.35	101.10	108.70	113.93	115.66	V-THETA 2
	V-THETA 3	752.43	724.22	702.52	639.25	576.25	560.18	571.62	575.85	575.99	V-THETA 3
	V(PR) 2	634.3	644.1	659.4	716.2	792.1	856.2	868.1	858.9	851.3	V(PR) 2
	V(PR) 3	336.7	377.3	405.6	470.6	510.6	510.5	469.2	447.4	430.5	V(PR) 3
	VTHETA PR2	-544.7	-555.2	-565.8	-586.8	-614.5	-638.5	-657.5	-660.9	-668.3	VTHETA PR2
	VTHETA PR3	136.1	99.7	69.8	-17.9	-113.5	-162.2	-175.2	-179.2	-187.2	VTHETA PR3
	U 2	615.53	622.83	632.37	661.64	702.85	739.64	766.21	774.80	783.94	U 2
	U 3	616.34	624.52	632.67	657.15	689.77	722.39	746.66	755.01	763.14	U 3
	M 2	0.3006	0.3014	0.3121	0.3792	0.4643	0.5334	0.5313	0.5149	0.4983	M 2
	M 3	0.7178	0.7162	0.7151	0.7048	0.6775	0.6573	0.6350	0.6237	0.6115	M 3
	M(PR) 2	0.5732	0.5822	0.5963	0.6507	0.7246	0.7884	0.7992	0.7894	0.7830	M(PR) 2
	M(PR) 3	0.2973	0.3334	0.3589	0.4179	0.4543	0.4533	0.4147	0.3948	0.3791	M(PR) 3
	TURN(PR)	83.023	74.861	69.018	52.840	38.035	29.700	27.307	26.702	25.775	TURN(PR)
	UUBAR	0.3289	0.2277	0.1548	0.0466	0.0421	0.1046	0.1610	0.1682	0.1767	UUBAR
	LOSS PARA	0.0968	0.0717	0.0506	0.0162	0.0150	0.0384	0.0599	0.0626	0.0654	LOSS PARA
	DFAC	0.8156	0.7478	0.7048	0.6149	0.5784	0.6076	0.6696	0.6934	0.7129	DFAC
	EFFP	0.8445	0.8814	0.9191	0.9749	0.9739	0.8987	0.8451	0.8418	0.8364	EFFP
	EFF	0.8361	0.8748	0.9144	0.9735	0.9726	0.8941	0.8381	0.8347	0.8291	EFF
	INCID	3.530	5.141	5.100	1.199	-3.570	-7.225	-7.430	-7.243	-7.448	INCID
	DEVM	10.058	10.779	10.083	10.179	10.645	9.025	10.633	12.705	16.177	DEVM
	P 2	13.722	13.743	13.796	14.123	14.610	15.054	15.043	14.937	14.832	P 2
	P 3	19.959	20.191	20.403	20.688	20.635	20.646	20.477	20.361	20.218	P 3
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	T 3	588.800	587.600	585.800	580.100	574.000	573.500	575.700	576.200	576.600	T 3
STATOR F	PCT SPAN	95.81	92.01	86.21	69.91	49.21	29.51	14.11	9.31	4.51	PCT SPAN
	DIA	16.659	16.803	17.023	17.641	18.426	19.173	19.757	19.939	20.121	DIA
STATOR -L.E.	BETA 3	68.252	62.855	59.259	52.169	47.726	47.806	51.299	53.117	54.641	BETA 3
STATOR -T.E.	BETA 4	14.261	13.828	13.027	11.099	10.202	10.409	10.435	10.302	10.193	BETA 4
	V 3	810.28	814.26	817.76	810.06	779.08	759.51	736.00	723.74	710.22	V 3
	V 4	457.55	475.96	502.54	556.12	560.11	561.18	555.36	551.11	543.16	V 4
	VZ 3	300.23	371.49	417.98	496.71	523.61	509.24	459.17	433.37	410.03	VZ 3
	VZ 4	443.43	462.11	489.51	545.43	550.60	550.61	543.85	539.43	531.21	VZ 4
	V-THETA 3	752.61	724.56	702.80	639.64	575.97	561.73	573.11	577.57	577.83	V-THETA 3
	V-THETA 4	112.71	113.75	113.25	107.00	99.08	101.15	100.16	98.05	95.51	V-THETA 4
	M 3	0.7152	0.7199	0.7245	0.7209	0.6946	0.6759	0.6518	0.6397	0.6266	M 3
	M 4	0.3905	0.4071	0.4314	0.4818	0.4881	0.4893	0.4831	0.4790	0.4716	M 4
	TURN(PR)	53.991	49.026	46.228	41.057	37.482	37.313	40.750	42.695	44.321	TURN(PR)
	UUBAR	0.0880	0.0942	0.0843	0.0384	0.0390	0.0602	0.0645	0.0582	0.0506	UUBAR
	LOSS PARA	0.0273	0.0295	0.0270	0.0129	0.0138	0.0223	0.0248	0.0226	0.0199	LOSS PARA
	DFAC	0.6883	0.6591	0.6233	0.5399	0.5038	0.4930	0.5006	0.5045	0.5107	DFAC
	EFFP	0.8908	0.8793	0.8863	0.9396	0.9322	0.8875	0.8717	0.8807	0.8946	EFFP
	INCID	3.252	3.453	3.452	-0.149	-4.929	-6.853	-6.360	-5.757	-5.751	INCID
	DEVM	19.510	19.827	18.824	15.843	14.289	14.384	14.390	13.448	12.428	DEVM
	P 3	19.959	20.191	20.403	20.688	20.635	20.646	20.477	20.361	20.218	P 3
	P 4	19.451	19.636	19.895	20.456	20.413	20.318	20.149	20.075	19.980	P 4
	T 3	588.800	587.600	585.800	580.100	574.000	573.500	575.700	576.200	576.600	T 3
	T 4	588.800	587.600	585.800	580.100	574.000	573.500	575.700	576.200	576.600	T 4

ORIGINAL PAGE IS
OF POOR QUALITY

Table B-7. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 84.76 Equivalent Rotor Speed = 8421.83 Equivalent Weight Flow = 26.919 lb/sec
Hub Radial Distortion
U.S. Customary Units

INLET GUIDE VANE	PCT SPAN	95.79	91.71	86.89	70.41	49.21	29.10	13.80	9.00	4.70	PCT SPAN
	DIA	16.749	16.991	17.276	18.252	19.507	20.697	21.603	21.867	22.142	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	16.106	15.076	14.357	13.078	12.662	12.620	14.012	14.314	15.814	BETA 2
	V 1	186.76	210.38	234.98	295.37	355.83	381.78	369.15	356.95	344.91	V 1
	V 2	229.24	235.27	240.70	285.80	344.66	381.82	375.38	365.98	354.72	V 2
	VZ 1	186.75	210.37	234.96	295.25	355.47	381.08	368.22	355.98	343.90	VZ 1
	VZ 2	220.23	227.15	233.14	278.17	335.34	370.64	361.47	351.67	337.74	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	63.59	61.19	59.67	64.36	75.34	82.98	90.20	89.73	85.66	V-THETA 2
	M 1	0.1677	0.1891	0.2114	0.2664	0.3220	0.3460	0.3343	0.3230	0.3119	M 1
	M 2	0.2062	0.2117	0.2166	0.2577	0.3117	0.3461	0.3401	0.3314	0.3205	M 2
	TURN	-16.11	-15.07	-14.35	-13.02	-12.63	-12.55	-13.80	-14.19	-15.67	TURN
	UUBAR	0.0	0.1656	0.2884	0.2476	0.1423	0.0437	0.0420	0.0501	0.0753	UUBAR
	DFAC	-0.090	-0.001	0.079	0.123	0.122	0.095	0.093	0.090	0.103	DFAC
	EFFP	1.0000	0.6054	0.1479	-0.3584	-0.8254	0.0048	0.4586	0.5167	0.4307	EFFP
	INCID	5.9000	5.9200	5.9700	6.2500	6.6600	7.0000	7.3200	7.4200	7.4200	INCID
	DEVM	0.894	2.226	3.326	5.785	7.614	9.057	8.795	8.857	7.613	DEVM
	P 1	13.933	14.016	14.109	14.390	14.754	14.972	14.941	14.879	14.817	P 1
	P 2	13.933	13.959	13.985	14.219	14.609	14.920	14.895	14.827	14.744	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	UUBAR FS										UUBAR FS
	P1 FS										P1 FS
	LOSS PARA FS										LOSS PARA FS
ROTOR F	PCT SPAN	95.01	89.99	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA	16.721	16.943	17.164	17.828	18.713	19.598	20.262	20.483	20.705	DIA
ROTOR -L.E.	BETA 2	12.897	12.268	11.742	10.671	10.225	10.085	11.209	11.470	12.664	BETA 2
ROTOR -T.E.	BETA 3	68.095	66.027	64.232	55.078	50.458	52.673	57.647	59.859	62.520	BETA 3
	BETA(PR) 2	63.133	63.168	63.110	59.689	55.581	53.560	54.779	55.855	56.981	BETA(PR) 2
	BETA(PR) 3	-24.512	-18.482	-13.724	-1.043	11.444	18.869	23.241	24.851	26.775	BETA(PR) 3
	V 2	285.77	289.57	295.30	353.65	435.10	490.83	485.10	472.67	457.36	V 2
	V 3	811.81	801.09	794.12	809.09	764.56	719.36	693.94	656.95	620.20	V 3
	VZ 2	278.56	282.96	289.11	347.25	427.31	491.23	473.08	460.49	443.19	VZ 2
	VZ 3	302.55	325.18	345.16	464.16	496.41	495.63	470.80	444.42	413.47	VZ 3
	V-THETA 2	63.78	61.53	60.09	69.45	77.07	85.89	93.75	93.43	88.14	V-THETA 2
	V-THETA 3	752.41	731.30	715.02	663.58	589.19	571.24	585.34	569.18	552.67	V-THETA 3
	V(PR) 2	616.4	626.9	639.4	688.3	756.5	811.4	821.9	822.1	815.1	V(PR) 2
	V(PR) 3	334.6	344.6	355.6	464.6	497.1	461.8	405.9	381.4	353.0	V(PR) 3
	VTHETA PR2	-549.9	-559.4	-570.3	-594.2	-623.6	-651.8	-670.1	-679.0	-682.0	VTHETA PR2
	VTHETA PR3	138.0	108.7	84.3	8.5	-98.5	-148.4	-159.2	-154.4	-148.2	VTHETA PR3
	U 2	613.64	620.92	630.43	679.61	700.69	737.97	763.86	772.43	781.54	U 2
	U 3	614.45	622.41	630.73	666.13	687.65	720.17	744.57	752.46	760.85	U 3
	M 2	0.2577	0.2611	0.2664	0.3200	0.3958	0.4484	0.4429	0.4314	0.4197	M 2
	M 3	0.7161	0.7063	0.7003	0.7183	0.6787	0.6355	0.6097	0.6024	0.5954	M 3
	M(PR) 2	0.5557	0.5653	0.5768	0.6228	0.6881	0.7413	0.7505	0.7500	0.7426	M(PR) 2
	M(PR) 3	0.2952	0.3038	0.3136	0.4120	0.4413	0.4080	0.3561	0.3364	0.3089	M(PR) 3
	TURN(PR)	87.483	81.553	76.828	60.718	44.099	34.635	31.483	30.947	30.171	TURN(PR)
	UUBAR	0.3841	0.3356	0.2902	0.0975	0.0491	0.1638	0.2328	0.2553	0.2842	UUBAR
	LOSS PARA	0.1126	0.1040	0.0935	0.0189	0.0173	0.0598	0.0959	0.0942	0.0930	LOSS PARA
	DFAC	0.8173	0.7999	0.7835	0.6251	0.5882	0.6587	0.7428	0.7787	0.8160	DFAC
	EFFP	0.6252	0.8379	0.8597	0.9689	0.9712	0.8652	0.8052	0.7944	0.7903	EFFP
	EFF	0.8158	0.8292	0.8521	0.9671	0.9696	0.8500	0.7966	0.7851	0.7807	EFF
	INCID	7.483	8.768	9.118	5.856	1.074	-2.008	-2.045	-1.871	-2.267	INCID
	DEVM	9.550	7.716	6.290	6.967	9.725	9.307	11.832	12.822	13.022	DEVM
	P 2	13.933	13.959	13.985	14.219	14.609	14.920	14.895	14.827	14.744	P 2
	P 3	20.171	20.244	20.353	21.232	20.951	20.525	20.319	20.279	20.254	P 3
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	T 3	589.600	588.800	587.600	583.800	576.750	576.300	579.100	580.500	581.800	T 3
STATOR F	PCT SPAN	95.81	92.01	86.21	69.91	49.21	29.51	14.11	9.31	4.51	PCT SPAN
	DIA	16.659	16.803	17.023	17.641	18.426	19.173	19.757	19.929	20.101	DIA
STATOR-L.E.	BETA 3	68.457	65.400	62.959	53.378	48.891	51.117	55.400	58.026	60.565	BETA 3
STATOR-T.E.	BETA 4	5.767	5.871	6.169	10.069	10.831	10.535	10.122	6.976	4.844	BETA 4
	V 3	809.11	804.69	803.15	827.51	782.24	737.04	710.00	702.61	695.41	V 3
	V 4	430.70	436.47	452.63	530.83	530.11	513.85	510.64	512.24	514.71	V 4
	VZ 3	297.11	334.07	365.12	483.52	513.86	483.97	457.34	471.39	441.10	VZ 3
	VZ 4	428.50	434.13	449.92	522.40	530.04	503.47	500.60	501.89	503.51	VZ 4
	V-THETA 3	752.59	731.64	715.31	663.69	588.90	572.87	586.87	544.95	504.60	V-THETA 3
	V-THETA 4	43.27	44.64	48.63	92.66	99.40	93.73	89.37	88.28	87.41	V-THETA 4
	M 3	0.7135	0.7097	0.7090	0.7355	0.6959	0.6524	0.6249	0.6171	0.6096	M 3
	M 4	0.3667	0.3720	0.3866	0.4574	0.4597	0.4452	0.4413	0.4421	0.4439	M 4
	TURN(PR)	62.690	59.528	56.785	43.307	34.019	40.500	45.670	47.639	48.955	TURN(PR)
	UUBAR	0.1119	0.1152	0.1121	0.1168	0.0952	0.0774	0.0641	0.0568	0.0500	UUBAR
	LOSS PARA	0.0356	0.0370	0.0366	0.0362	0.0336	0.0287	0.0247	0.0220	0.0200	LOSS PARA
	DFAC	0.7484	0.7346	0.7100	0.5981	0.5500	0.5513	0.5888	0.5802	0.5810	DFAC
	EFFP	0.8672	0.8610	0.8602	0.9339	0.8508	0.8702	0.8540	0.8948	0.9018	EFFP
	INCID	3.456	5.998	7.153	1.060	-3.763	-3.560	-1.751	-0.827	0.192	INCID
	DEVM	11.016	11.871	11.968	14.803	14.918	14.910	14.078	13.124	12.113	DEVM
	P 3	20.171	20.244	20.353	21.232	20.951	20.525	20.319	20.279	20.254	P 3
	P 4	19.521	19.579	19.703	20.483	20.400	20.130	20.015	20.015	20.028	P 4
	T 3	589.600	588.800	587.600	583.800	576.750	576.300	579.100	580.500	581.800	T 3
	T 4	589.600	588.800	587.600	583.800	576.750	576.300	579.100	580.500	581.800	T 4

Table B-7. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 69.86 Equivalent Rotor Speed = 6940.91 Equivalent Weight Flow = 30.752 lb/sec
Hub Radial Distortion
U.S. Customary Units

INLET GUIDE VANE	PCT SPAN	95.75	91.71	86.89	70.41	49.21	29.10	13.80	9.00	4.70	PCT SPAN
	DIA	16.749	16.991	17.276	18.252	19.507	20.697	21.603	21.887	22.142	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	15.261	14.556	13.787	12.626	12.624	12.921	14.063	14.960	16.347	BETA 2
	V 1	210.66	234.93	262.93	332.99	411.24	450.99	444.21	420.53	402.34	V 1
	V 2	261.20	270.10	280.28	331.78	401.50	446.92	441.59	428.58	418.69	V 2
	VZ 1	210.66	234.92	262.91	332.87	410.81	450.16	443.10	419.39	401.15	VZ 1
	VZ 2	251.98	261.41	272.15	323.44	390.70	433.32	425.14	410.64	398.16	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	68.75	67.68	66.78	72.45	87.50	99.41	106.49	109.72	116.78	V-THETA 2
	M 1	0.1894	0.2114	0.2368	0.3009	0.3734	0.4107	0.4043	0.3821	0.3651	M 1
	M 2	0.2352	0.2434	0.2526	0.2998	0.3644	0.4069	0.4019	0.3897	0.3804	M 2
	TURN	-15.26	-14.55	-13.78	-12.61	-12.59	-12.85	-13.96	-14.83	-16.20	TURN
	UUBAR	0.0313	0.1505	0.2389	0.2074	0.1249	0.0510	0.0754	0.0515	0.0323	UUBAR
	DFAC	-0.108	-0.033	0.037	0.094	0.115	0.106	0.114	0.101	0.096	DFAC
	EFFP	0.9486	0.6854	0.3681	-0.0378	-0.6559	-0.6090	-0.2010	0.4439	0.7310	EFFP
	INCID	5.9000	5.9200	5.9700	6.2500	6.6600	7.0000	7.3200	7.4200	7.4200	INCID
	DEVM	1.740	2.745	3.896	6.187	7.652	8.758	8.745	8.217	7.084	DEVM
	P 1	13.635	13.730	13.846	14.205	14.732	15.102	15.117	14.954	14.838	P 1
	P 2	13.624	13.666	13.719	14.025	14.563	15.017	14.990	14.880	14.796	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	UUBAR FS										UUBAR FS
	P1 FS										P1 FS
	LOSS PARA FS										LOSS PARA FS
ROTOR F	PCT SPAN	95.01	89.99	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA	16.721	16.943	17.164	17.828	18.713	19.598	20.262	20.483	20.705	DIA
ROTOR -L.E.	BETA 2	12.177	11.798	11.224	10.267	10.054	10.104	11.003	11.749	12.838	BETA 2
ROTOR -T.E.	BETA 3	62.966	57.333	53.512	46.011	42.849	43.210	45.307	46.862	49.480	BETA 3
	BETA(PR) 2	53.811	53.15	53.159	49.126	44.023	41.280	42.350	43.560	44.404	BETA(PR) 2
	BETA(PR) 3	-18.641	-10.459	-3.535	4.011	10.780	15.637	18.337	20.045	21.749	BETA(PR) 3
	V 2	326.91	333.83	345.51	413.55	513.84	586.94	583.30	564.63	550.94	V 2
	V 3	687.81	692.53	696.73	703.11	692.07	669.13	651.74	635.29	616.89	V 3
	VZ 2	319.55	326.78	338.89	406.72	504.90	575.43	569.24	549.30	533.52	VZ 2
	VZ 3	312.13	373.18	414.16	488.16	506.92	486.79	457.19	433.18	399.67	VZ 3
	V-THETA 2	68.95	68.26	67.25	73.07	89.52	102.54	110.67	114.25	121.58	V-THETA 2
	V-THETA 3	611.70	582.02	559.95	505.70	470.22	457.29	462.12	462.29	467.62	V-THETA 3
	V(PR) 2	541.2	550.9	565.2	621.7	702.9	767.6	772.8	760.7	749.5	V(PR) 2
	V(PR) 3	331.7	381.6	416.5	489.7	516.9	507.1	483.9	463.5	432.8	V(PR) 3
	VTHETA PR2	-436.8	-443.5	-452.3	-470.0	-488.0	-505.2	-518.9	-522.4	-522.5	VTHETA PR2
	VTHETA PR3	105.3	68.9	40.1	-34.2	-96.5	-136.2	-151.5	-158.0	-159.4	VTHETA PR3
	U 2	505.74	511.73	519.58	543.62	577.48	607.71	629.54	636.60	644.11	U 2
	U 3	506.40	513.13	519.82	539.93	566.73	593.53	613.64	620.34	627.06	U 3
	M 2	0.2954	0.3017	0.3125	0.3756	0.4703	0.5409	0.5373	0.5192	0.5059	M 2
	M 3	0.6122	0.6174	0.6226	0.6314	0.6227	0.6008	0.5836	0.5679	0.5504	M 3
	M(PR) 2	0.4890	0.4979	0.5112	0.5646	0.6434	0.7073	0.7119	0.6994	0.6883	M(PR) 2
	M(PR) 3	0.2952	0.3402	0.3722	0.4398	0.4651	0.4554	0.4334	0.4143	0.3861	M(PR) 3
	TURN(PR)	72.321	64.017	58.687	45.103	33.200	25.573	23.929	23.434	22.581	TURN(PR)
	UUBAR	0.3263	0.1806	0.0817	-0.0549	-0.0028	0.1040	0.1323	0.1428	0.1698	UUBAR
	LOSS PARA	0.0996	0.0580	0.0270	-0.0190	-0.0010	0.0387	0.0504	0.0545	0.0649	LOSS PARA
	DFAC	0.7105	0.6126	0.5522	0.4521	0.4606	0.5147	0.5526	0.5726	0.6081	DFAC
	EFFP	0.8250	0.8812	0.9455	1.0526	1.0187	0.8696	0.8331	0.8218	0.7947	EFFP
	EFF	0.8188	0.8769	0.9434	1.0546	1.0193	0.8659	0.8284	0.8169	0.7893	EFF
	INCID	-1.839	-0.785	-0.842	-4.709	-10.488	-14.292	-14.493	-14.180	-14.802	INCID
	DEVM	15.389	15.699	14.471	12.008	8.561	6.085	6.948	9.036	12.017	DEVM
	P 2	13.624	13.666	13.719	14.025	14.563	15.017	14.996	14.880	14.796	P 2
	P 3	17.413	17.645	17.845	18.246	18.405	18.289	18.194	18.020	17.834	P 3
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	T 3	564.700	563.500	561.600	557.100	553.900	553.400	554.250	554.400	554.500	T 3
STATOR F	PCT SPAN	95.81	92.01	86.21	69.91	49.21	29.51	14.11	9.31	4.51	PCT SPAN
	DIA	16.659	16.803	17.023	17.641	18.426	19.173	19.757	19.939	20.121	DIA
STATOR-L.E.	BETA 3	63.110	56.909	52.808	45.056	41.790	42.175	44.239	45.786	48.379	BETA 3
STATOR-T.E.	BETA 4	11.719	9.920	7.835	6.662	7.293	8.857	9.496	9.380	8.948	BETA 4
	V 3	686.02	695.04	703.27	715.15	706.03	684.42	666.07	648.92	629.50	V 3
	V 4	530.64	546.76	570.31	613.71	632.01	622.56	611.32	601.69	590.87	V 4
	VZ 3	310.28	379.45	425.08	505.02	525.85	506.16	475.81	451.12	416.81	VZ 3
	VZ 4	519.56	538.52	564.87	609.24	626.14	613.64	600.36	590.57	580.01	VZ 4
	V-THETA 3	611.64	582.29	560.18	506.01	469.99	458.55	463.33	463.67	469.12	V-THETA 3
	V-THETA 4	107.77	94.18	77.73	71.16	80.13	95.62	100.42	97.55	91.11	V-THETA 4
	M 3	0.6105	0.6198	0.6289	0.6431	0.6363	0.6156	0.5974	0.5809	0.5623	M 3
	M 4	0.4653	0.4806	0.5032	0.5460	0.5650	0.5563	0.5452	0.5361	0.5258	M 4
	TURN(PR)	51.391	46.988	44.967	38.379	34.451	33.230	34.621	36.273	39.307	TURN(PR)
	UUBAR	0.0381	0.0498	0.0379	0.0310	0.0385	0.0742	0.1190	0.1161	0.1043	UUBAR
	LOSS PARA	0.0119	0.0158	0.0123	0.0105	0.0137	0.0276	0.0459	0.0452	0.0411	LOSS PARA
	DFAC	0.4619	0.4415	0.4153	0.3511	0.3058	0.2933	0.2989	0.2996	0.3052	DFAC
	EFFP	0.9175	0.8869	0.9047	0.9000	0.8350	0.6290	0.3399	0.2720	0.2243	EFFP
	INCID	-1.891	-2.493	-2.999	-7.263	-10.865	-12.484	-13.424	-13.096	-12.022	INCID
	DEVM	16.968	15.919	13.633	11.408	11.384	12.836	13.455	12.531	11.171	DEVM
	P 3	17.413	17.645	17.845	18.246	18.405	18.289	18.194	18.020	17.814	P 3
	P 4	17.265	17.444	17.687	18.109	18.236	17.983	17.729	17.592	17.455	P 4
	T 3	564.700	563.500	561.600	557.100	553.900	553.400	554.250	554.400	554.500	T 3
	T 4	564.700	563.500	561.600	557.100	553.900	553.400	554.250	554.400	554.500	T 4

786268

Table B-7. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 69.67 Equivalent Rotor Speed = 6922.00 Equivalent Weight Flow = 25.444 lb/sec
Hub Radial Distortion
U.S. Customary Units

INLET GUIDE VANE	PCT SPAN	95.79	91.71	86.89	70.41	49.21	29.10	13.80	9.00	4.70	PCT SPAN
	DIA	16.749	16.991	17.276	18.252	19.507	20.697	21.603	21.887	22.142	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	15.343	14.317	13.601	12.645	12.871	13.774	14.717	14.717	16.513	BETA 2
	V 1	163.88	180.41	204.89	263.01	324.12	360.33	345.65	335.08	324.21	V 1
	V 2	209.03	215.48	222.61	265.66	321.49	360.63	354.98	346.61	337.86	V 2
	VZ 1	163.86	180.41	204.88	262.91	323.78	359.66	344.79	334.17	323.25	VZ 1
	VZ 2	201.57	208.77	216.32	258.66	312.87	349.73	342.18	332.46	321.03	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	55.31	53.28	52.34	58.10	69.95	79.91	83.88	87.33	95.17	V-THETA 2
	M 1	0.1471	0.1620	0.1841	0.2369	0.2928	0.3262	0.3126	0.3029	0.2929	M 1
	M 2	0.1879	0.1937	0.2002	0.2393	0.2904	0.3264	0.3211	0.3135	0.3054	M 2
	TURN	-15.34	-14.32	-13.60	-12.63	-12.57	-12.80	-13.6	-14.59	-16.36	TURN
	UUBAR	0.1230	0.2025	0.2972	0.2254	0.1218	0.0487	0.0212	0.0283	0.0363	UUBAR
	DFAC	-0.140	-0.075	0.018	0.081	0.100	0.096	0.082	0.085	0.096	DFAC
	EFFP	0.8372	0.6805	0.3805	0.0839	-0.1589	0.0344	0.7286	0.7206	0.7110	EFFP
	INCID	5.9000	5.9200	5.9700	6.2500	6.6600	7.0000	7.3200	7.4200	7.4200	INCID
	DEVM	1.657	2.934	4.082	6.168	7.673	8.807	9.032	8.457	6.915	DEVM
	P 1	14.032	14.084	14.162	14.395	14.716	14.964	14.913	14.861	14.809	P 1
	P 2	14.006	14.032	14.063	14.270	14.612	14.913	14.892	14.835	14.778	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	UUBAR FS										UUBAR FS
	P1 FS										P1 FS
	LOSS PARA FS										LOSS PARA FS

ROTOR F	PCT SPAN	95.01	89.99	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA	16.721	16.943	17.164	17.828	18.713	19.598	20.262	20.483	20.705	DIA
ROTOR -L.E.	BETA 2	12.518	11.678	11.148	10.386	10.223	10.340	11.076	11.846	13.270	BETA 2
ROTOR -T.E.	BETA 3	69.783	64.233	60.648	52.805	49.036	48.640	51.444	53.622	56.919	BETA 3
	BETA(PR) 2	60.493	60.426	60.120	56.287	51.804	49.212	50.522	51.447	52.285	BETA(PR) 2
	BETA(PR) 3	-26.592	-16.037	-9.975	3.215	12.746	18.269	22.023	23.590	26.078	BETA(PR) 3
	V 2	260.03	264.68	272.60	327.86	404.06	461.17	456.44	445.75	434.59	V 2
	V 3	660.41	660.49	660.20	648.49	626.08	611.97	592.99	582.59	567.05	V 3
	VZ 2	254.04	259.20	267.44	322.32	396.82	451.80	445.33	433.50	420.12	VZ 2
	VZ 3	228.02	286.82	323.53	391.43	410.15	403.78	388.85	344.82	308.69	VZ 3
	V-THETA 2	55.47	53.58	52.70	59.07	71.56	82.43	87.17	90.93	99.08	V-THETA 2
	V-THETA 3	619.16	594.17	575.31	516.44	472.41	458.63	462.78	468.07	474.18	V-THETA 3
	V(PR) 2	515.8	525.2	536.8	580.8	642.3	692.9	702.2	697.3	688.6	V(PR) 2
	V(PR) 3	256.5	300.0	328.8	392.9	421.2	426.5	399.7	378.1	345.8	V(PR) 3
	VTHETA PR2	-448.9	-456.8	-465.5	-483.1	-504.3	-523.6	-540.7	-543.9	-543.3	VTHETA PR2
	VTHETA PR3	114.1	72.4	56.9	-22.0	-92.8	-133.3	-149.2	-150.6	-151.2	VTHETA PR3
	U 2	504.36	510.34	518.16	542.14	575.91	606.05	627.83	634.87	642.36	U 2
	U 3	505.02	511.73	518.40	538.46	565.19	591.92	611.97	618.65	625.35	U 3
	M 2	0.2342	0.2384	0.2456	0.2962	0.3668	0.4203	0.4158	0.4058	0.3953	M 2
	M 3	0.5852	0.5856	0.5862	0.5776	0.5583	0.5452	0.5267	0.5168	0.5022	M 3
	M(PR) 2	0.4645	0.4731	0.4837	0.5248	0.5830	0.6315	0.6397	0.6348	0.6264	M(PR) 2
	M(PR) 3	0.2273	0.2661	0.2970	0.3499	0.3756	0.3800	0.3550	0.3354	0.3062	M(PR) 3
	TURN(PR)	86.912	76.377	70.083	53.060	39.020	30.880	28.433	27.796	26.159	TURN(PR)
	UUBAR	0.3511	0.2377	0.1560	0.0227	0.0309	0.0856	0.1274	0.1483	0.1714	UUBAR
	LOSS PARA	0.1011	0.0746	0.0510	0.0078	0.0111	0.0315	0.0474	0.0552	0.0633	LOSS PARA
	DFAC	0.8549	0.7656	0.7104	0.5955	0.5703	0.5909	0.6416	0.6733	0.7173	DFAC
	EFFP	0.8364	0.8724	0.9138	0.9892	0.9812	0.9162	0.8713	0.8599	0.8384	EFFP
	EFF	0.8704	0.8675	0.9104	0.9887	0.9805	0.9136	0.8673	0.8556	0.8335	EFF
	INCID	4.643	5.026	6.118	2.453	-2.706	-6.361	-6.318	-6.288	-6.914	INCID
	DEVM	7.481	10.149	10.035	11.213	10.524	8.710	10.619	12.566	16.327	DEVM
	P 2	14.006	14.032	14.063	14.270	14.612	14.913	14.892	14.835	14.778	P 2
	P 3	18.102	18.257	18.392	18.547	18.547	18.579	18.485	18.392	18.252	P 3
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	T 3	566.200	565.400	564.100	559.500	556.000	555.500	556.800	557.100	557.400	T 3

STATOR F	PCT SPAN	95.81	92.01	86.21	69.91	49.21	29.51	14.11	9.31	4.51	PCT SPAN
	DIA	16.659	16.803	17.023	17.641	18.426	19.173	19.757	19.939	20.121	DIA
STATOR-L.E.	BETA 3	70.066	63.764	59.798	51.720	47.872	47.527	50.258	52.390	55.589	BETA 3
STATOR-T.E.	BETA 4	16.566	15.205	13.333	10.387	9.417	10.180	11.091	11.304	11.473	BETA 4
	V 3	658.78	662.74	665.98	656.47	637.22	624.59	604.83	594.04	577.90	V 3
	V 4	399.52	415.88	441.77	473.91	479.37	483.24	473.04	466.24	454.15	V 4
	VZ 3	224.60	282.97	325.00	407.82	427.07	421.02	385.79	361.68	325.85	VZ 3
	VZ 4	382.98	401.28	429.78	465.90	472.34	474.49	462.24	454.85	442.29	VZ 4
	V-THETA 3	619.31	594.45	575.54	516.76	472.19	459.89	463.99	469.47	475.69	V-THETA 3
	V-THETA 4	113.77	100.06	101.86	85.40	78.34	85.20	90.61	90.92	89.77	V-THETA 4
	M 3	0.5837	0.5879	0.5917	0.5871	0.5689	0.5571	0.5378	0.5275	0.5123	M 3
	M 4	0.3466	0.3614	0.3850	0.4167	0.4220	0.4258	0.4160	0.4097	0.3986	M 4
	TURN(PR)	53.521	48.558	46.461	41.320	38.411	37.263	39.055	40.969	44.000	TURN(PR)
	UUBAR	0.0629	0.0680	0.0507	0.0241	0.0312	0.0528	0.0784	0.0783	0.0744	UUBAR
	LOSS PARA	0.0146	0.0212	0.0162	0.0091	0.0111	0.0196	0.0301	0.0303	0.0291	LOSS PARA
	DFAC	0.6394	0.6104	0.5713	0.5058	0.4726	0.4558	0.4632	0.4712	0.4853	DFAC
	EFFP	0.9103	0.9006	0.9201	0.9660	0.9365	0.8829	0.8186	0.8162	0.8235	EFFP
	INCID	5.066	4.362	3.992	-0.598	-4.783	-7.132	-7.402	-6.486	-4.800	INCID
	DEVM	21.795	21.203	19.131	15.131	13.506	14.155	15.043	14.445	13.700	DEVM
	P 3	18.102	18.257	18.392	18.547	18.579	18.485	18.392	18.252	18.252	P 3
	P 4	17.864	17.989	18.105	18.464	18.434	18.392	18.226	18.144	18.030	P 4
	T 3	566.200	565.400	564.100	559.500	556.000	555.500	556.800	557.100	557.400	T 3
	T 4	566.200	565.400	564.100	559.500	556.000	555.500	556.800	557.100	557.400	T 4

Table B-7. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 70.12 Equivalent Rotor Speed = 6967.30 Equivalent Weight Flow = 21.988 lb/sec
Hub Radial Distortion
U.S. Customary Units

INLET GUIDE VANE	PCT SPAN	95.79	91.71	86.89	70.41	49.21	29.10	13.80	9.00	4.70	PCT SPAN
	DIA	16.740	16.991	17.276	18.262	19.507	20.697	21.603	21.887	22.142	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	15.656	15.090	14.339	12.589	12.301	12.811	13.807	14.728	16.086	BETA 2
	V 1	150.62	164.72	185.48	233.65	286.69	313.50	302.36	292.78	278.96	V 1
	V 2	183.79	192.55	194.99	233.92	280.44	309.97	303.71	297.25	288.07	V 2
	VZ 1	150.61	164.71	185.47	233.57	286.40	312.93	301.60	291.98	278.14	VZ 1
	VZ 2	176.97	185.90	188.97	228.07	273.24	300.67	292.71	285.10	274.30	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	49.60	50.12	48.28	50.93	59.58	68.37	71.93	74.94	79.10	V-THETA 2
	M 1	0.1352	0.1479	0.1666	0.2102	0.2585	0.2830	0.2728	0.2641	0.2514	M 1
	M 2	0.1651	0.1730	0.1752	0.2104	0.2528	0.2798	0.2741	0.2681	0.2598	M 2
	TURN	-15.66	-15.09	-14.34	-12.58	-12.27	-12.74	-13.70	-14.60	-15.94	TURN
	UUBAR	0.1136	0.1421	0.2980	0.2096	0.1377	0.0761	0.0751	0.0729	0.0644	UUBAR
	DFAC	-0.088	-0.046	0.055	0.089	0.110	0.107	0.102	0.102	0.100	DFAC
	EFFP	0.8124	0.7223	0.2622	0.0104	-0.4741	-0.4391	0.1089	0.3023	0.5138	EFFP
	INCID	5.9000	5.9200	5.9700	6.2500	6.6600	7.0000	7.3200	7.4200	7.4200	INCID
	DEVM	1.344	2.211	3.344	6.224	7.974	8.867	8.999	8.446	7.342	DEVM
	P 1	14.205	14.246	14.307	14.481	14.727	14.890	14.860	14.819	14.757	P 1
	P 2	14.185	14.215	14.226	14.389	14.635	14.829	14.803	14.768	14.716	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	UUBAR FS										UUBAR FS
	P1 FS										P1 FS
	LOSS PARA FS										LOSS PARA FS
ROTOR F	PCT SPAN	95.01	89.99	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA	16.721	16.943	17.164	17.828	18.713	19.598	20.262	20.483	20.705	DIA
ROTOR -L.E.	BETA 2	12.597	12.330	11.779	10.379	10.046	10.400	11.221	11.974	13.057	BETA 2
ROTOR -T.E.	BETA 3	68.941	66.268	63.335	54.599	50.430	52.381	57.670	59.396	61.116	BETA 3
	BETA(PR) 2	64.073	63.538	63.756	60.209	56.445	54.540	55.930	56.740	57.815	BETA(PR) 2
	BETA(PR) 3	-23.845	-17.299	-11.581	0.637	13.286	19.990	24.671	26.125	27.999	BETA(PR) 3
	V 2	228.11	236.04	238.18	287.61	350.14	392.30	386.41	378.52	367.02	V 2
	V 3	657.07	652.52	651.02	650.85	617.94	588.26	565.64	561.65	556.71	V 3
	VZ 2	222.62	230.60	233.16	282.76	344.06	384.25	376.81	367.94	355.10	VZ 2
	VZ 3	235.87	262.36	292.10	382.16	393.37	358.61	302.05	285.50	268.49	VZ 3
	V-THETA 2	49.75	50.40	48.62	51.79	60.95	70.52	74.76	78.04	82.35	V-THETA 2
	V-THETA 3	612.58	596.79	581.65	537.73	476.00	465.34	477.24	482.68	486.69	V-THETA 3
	V(PR) 2	509.2	517.5	527.3	569.2	622.9	663.3	673.9	672.2	668.0	V(PR) 2
	V(PR) 3	259.5	276.2	298.5	382.5	404.8	382.8	333.8	319.5	305.7	V(PR) 3
	VTHETA PR2	-467.9	-463.3	-472.9	-493.9	-518.7	-536.5	-557.2	-561.0	-564.2	VTHETA PR2
	VTHETA PR3	104.3	81.7	59.9	-4.3	-92.9	-130.5	-138.7	-140.0	-142.8	VTHETA PR3
	U 2	507.66	513.68	521.55	545.69	579.68	610.02	631.94	639.02	646.56	U 2
	U 3	506.23	515.08	521.80	541.98	568.89	595.79	615.98	622.70	629.44	U 3
	M 2	0.2052	0.2124	0.2163	0.2593	0.3168	0.3558	0.3503	0.3430	0.3323	M 2
	M 3	0.5819	0.5779	0.5770	0.5868	0.5497	0.5219	0.4999	0.4958	0.4910	M 3
	M(PR) 2	0.4580	0.4656	0.4745	0.5132	0.5635	0.6016	0.6110	0.6092	0.6049	M(PR) 2
	M(PR) 3	0.2298	0.2446	0.2645	0.3401	0.3602	0.3396	0.2950	0.2821	0.2696	M(PR) 3
	TURN(PR)	87.759	80.745	75.324	59.559	43.125	34.498	31.211	30.574	29.788	TURN(PR)
	UUBAR	0.3905	0.3318	0.2621	0.0608	0.0601	0.1460	0.2209	0.2292	0.2299	UUBAR
	LOSS PARA	0.1150	0.1035	0.0851	0.0211	0.0215	0.0531	0.0806	0.0836	0.0835	LOSS PARA
	DFAC	0.8466	0.8118	0.7693	0.6228	0.5915	0.6495	0.7403	0.7649	0.7867	DFAC
	EFFP	0.8206	0.8372	0.8725	0.9669	0.9609	0.8761	0.8140	0.8098	0.8112	EFFP
	EFF	0.8140	0.8312	0.8677	0.9656	0.9595	0.8722	0.8082	0.8038	0.8052	EFF
	INCID	8.423	9.138	9.755	6.376	1.938	-1.026	-0.901	-0.985	-1.371	INCID
	DEVM	10.214	8.893	8.431	8.637	11.063	10.425	13.257	15.091	18.241	DEVM
	P 2	14.185	14.215	14.226	14.389	14.635	14.829	14.803	14.768	14.716	P 2
	P 3	18.280	18.357	18.470	18.920	18.664	18.500	18.367	18.367	18.357	P 3
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	T 3	566.600	566.000	565.000	562.400	557.600	557.500	559.500	560.200	560.700	T 3
STATOR F	PCT SPAN	95.81	92.01	86.21	69.91	49.21	29.51	14.11	9.31	4.51	PCT SPAN
	DIA	16.659	16.803	17.023	17.641	18.426	19.173	19.757	19.939	20.121	DIA
STATOR-L.E.	BETA 3	69.199	65.779	62.405	53.422	49.224	51.162	56.249	57.922	59.598	BETA 3
STATOR-T.E.	BETA 4	14.553	13.856	12.887	12.304	11.425	11.632	11.659	11.271	10.917	BETA 4
	V 3	655.45	654.71	656.62	670.18	628.79	599.97	576.49	572.37	567.12	V 3
	V 4	344.05	347.32	375.60	442.61	424.42	407.01	404.32	403.80	402.57	V 4
	VZ 3	232.77	261.59	304.14	399.27	410.33	375.69	319.73	303.42	286.47	VZ 3
	VZ 4	333.00	346.98	366.06	432.23	415.52	397.70	394.31	393.98	392.80	VZ 4
	V-THETA 3	612.73	597.07	581.89	538.08	475.77	466.63	478.49	484.12	488.25	V-THETA 3
	V-THETA 4	86.45	85.56	83.75	94.27	83.97	81.87	81.36	78.52	75.76	V-THETA 4
	M 3	0.5803	0.5800	0.5823	0.5967	0.5600	0.5329	0.5099	0.5058	0.5007	M 3
	M 4	0.2974	0.3093	0.3257	0.3864	0.3717	0.3561	0.3530	0.3523	0.3511	M 4
	TURN(PR)	54.646	51.922	49.514	41.107	37.758	39.450	44.489	46.546	48.574	TURN(PR)
	UUBAR	0.1028	0.1012	0.0971	0.0783	0.0743	0.0912	0.0753	0.0817	0.0850	UUBAR
	LOSS PARA	0.0318	0.0317	0.0311	0.0262	0.0262	0.0337	0.0288	0.0316	0.0333	LOSS PARA
	DFAC	0.7323	0.7080	0.6782	0.5676	0.5518	0.5668	0.5721	0.5789	0.5851	DFAC
	EFFP	0.8729	0.8711	0.8773	0.8779	0.8471	0.8650	0.8517	0.8435	EFFP
	INCID	4.199	5.377	6.599	1.104	-3.430	-3.495	-1.402	-0.941	-0.779	INCID
	DEVM	19.803	19.855	18.685	17.048	15.512	15.604	15.609	14.413	13.147	DEVM
	P 3	18.280	18.357	18.470	18.920	18.664	18.500	18.367	18.367	18.357	P 3
	P 4	17.897	17.979	18.101	18.603	18.398	18.204	18.142	18.127	18.112	P 4
	T 3	566.600	566.000	565.000	562.400	557.600	557.500	559.500	560.200	560.700	T 3
	T 4	566.600	566.000	565.000	562.400	557.600	557.500	559.500	560.200	560.700	T 4

ORIGINAL PAGE IS OF POOR QUALITY

Table B-8. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 99.63 Equivalent Rotor Speed = 9899.00 Equivalent Weight Flow = 17.907 kg/sec
Tip Radial Distortion
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	95.79	91.71	86.89	70.41	49.21	29.10	13.80	9.00	4.70	PCT SPAN
	DIA	0.425	0.432	0.439	0.464	0.495	0.526	0.549	0.556	0.562	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	12.616	12.063	11.671	11.462	12.257	13.864	15.626	16.506	17.430	BETA 2
	V 1	179.77	179.31	180.59	173.33	153.01	121.05	95.64	91.17	89.46	V 1
	V 2	171.66	174.79	177.40	173.56	157.09	134.83	118.29	115.89	114.37	V 2
	VZ 1	179.77	179.30	180.57	173.27	152.86	120.83	95.41	90.92	89.19	VZ 1
	VZ 2	167.51	170.92	173.70	169.93	153.08	130.22	113.08	110.21	108.15	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	37.49	36.53	35.88	34.46	33.26	32.14	31.63	32.66	33.96	V-THETA 2
	M 1	0.5437	0.5422	0.5463	0.5231	0.4590	0.3603	0.2833	0.2699	0.2647	M 1
	M 2	0.5178	0.5278	0.5361	0.5238	0.4718	0.4026	0.3519	0.3446	0.3400	M 2
	TURN	-12.62	-12.06	-11.67	-11.45	-12.22	-13.79	-15.51	-16.37	-17.27	TURN
	UUBAR	0.0872	0.0674	0.0429	0.0214	0.0478	0.0464	0.0456	0.0336	0.0523	UUBAR
	DFAC	0.129	0.107	0.098	0.080	0.064	-0.002	-0.095	-0.114	-0.109	DFAC
	EFFP	8.2421	-4.9295	-11.7742	0.1215	0.5526	0.8459	0.9235	0.9500	0.9261	EFFP
	INCID	5.9000	5.9200	5.9700	6.2500	6.6600	7.0000	7.3200	7.4200	7.4200	INCID
	DEVM	4.384	5.238	6.012	7.349	8.018	7.820	7.193	6.682	6.009	DEVM
	P 1	10.621	10.660	10.690	10.537	10.135	9.617	9.303	9.257	9.242	P 1
	P 2	10.453	10.529	10.606	10.499	10.070	9.579	9.280	9.242	9.219	P 2
	T 1	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 1
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	UUBAR FS										UUBAR FS
	PI FS										PI FS
	LOSS PARA FS										LOSS PARA FS
ROTOR F	PCT SPAN	95.01	89.99	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA	0.425	0.430	0.436	0.453	0.475	0.498	0.515	0.520	0.526	DIA
ROTOR -L.E.	BETA 2	8.915	8.693	8.407	8.407	9.297	10.855	12.444	13.160	13.871	BETA 2
ROTOR -T.E.	BETA 3	69.768	68.427	65.715	47.032	47.334	47.858	50.850	52.138	53.253	BETA 3
	BETA(PR) 2	37.242	37.707	37.814	40.332	46.239	53.193	58.254	59.072	59.864	BETA(PR) 2
	BETA(PR) 3	-15.488	-9.379	-5.754	5.247	12.307	19.364	22.191	23.296	24.460	BETA(PR) 3
	V 2	242.66	243.03	247.14	239.77	211.03	176.75	153.43	150.30	148.47	V 2
	V 3	289.21	291.84	293.76	292.06	279.17	264.42	258.76	256.60	254.55	V 3
	VZ 2	239.73	240.23	244.47	237.07	207.82	172.87	148.96	145.43	143.16	VZ 2
	VZ 3	132.14	152.47	165.42	195.62	189.05	177.14	163.03	157.14	151.93	VZ 3
	V-THETA 2	37.60	36.73	36.13	35.04	34.02	33.15	32.67	34.00	35.35	V-THETA 2
	V-THETA 3	256.75	248.26	242.63	216.74	205.11	195.76	200.25	202.13	203.48	V-THETA 3
	V(PR) 2	301.1	303.7	309.5	311.1	300.8	289.0	283.6	283.5	284.0	V(PR) 2
	V(PR) 3	138.1	155.5	166.4	196.6	193.8	188.3	176.9	171.9	167.8	V(PR) 3
	VTHETA PR2	-182.2	-185.7	-189.7	-201.3	-217.0	-231.0	-240.8	-242.7	-244.6	VTHETA PR2
	VTHETA PR3	36.6	25.2	16.7	-18.0	-41.2	-62.3	-66.5	-67.5	-69.1	VTHETA PR3
	U 2	219.84	222.45	225.86	236.31	251.03	264.17	273.66	276.73	280.00	U 2
	U 3	220.13	223.06	225.97	234.71	246.36	258.01	266.75	269.66	272.58	U 3
	M 2	0.7524	0.7536	0.7679	0.7424	0.6455	0.5340	0.4603	0.4505	0.4448	M 2
	M 3	0.8411	0.8507	0.8582	0.8585	0.8159	0.7675	0.7464	0.7387	0.7315	M 3
	M(PR) 2	0.9337	0.9416	0.9615	0.9632	0.9200	0.8731	0.8509	0.8497	0.8509	M(PR) 2
	M(PR) 3	0.4016	0.4532	0.4862	0.5778	0.5665	0.5467	0.5102	0.4949	0.4823	M(PR) 3
	TURN(PR)	52.610	47.034	43.561	35.073	33.891	33.773	36.017	35.770	35.169	TURN(PR)
	UUBAR	0.5049	0.4303	0.3648	0.1743	0.1229	0.0796	0.0857	0.0998	0.1086	UUBAR
	LOSS PARA	0.1567	0.1387	0.1204	0.0602	0.0440	0.0291	0.0319	0.0373	0.0406	LOSS PARA
	DFAC	0.7761	0.7159	0.6825	0.5696	0.5616	0.5623	0.6092	0.6303	0.6478	DFAC
	EFFP	0.5511	0.6066	0.6609	0.8320	0.8832	0.9225	0.9327	0.9239	0.9157	EFFP
	EFF	0.5321	0.5885	0.6441	0.8222	0.8761	0.9176	0.9282	0.9188	0.9100	EFF
	INCID	-18.408	-16.693	-16.187	-13.503	-8.273	-2.376	1.433	1.354	0.485	INCID
	DEVM	18.522	16.773	14.252	13.244	10.086	9.801	10.786	12.234	14.716	DEVM
	P 2	10.453	10.529	10.606	10.499	10.070	9.579	9.280	9.242	9.219	P 2
	P 3	14.043	14.522	14.974	15.641	15.327	14.859	14.790	14.752	14.733	P 3
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	T 3	335.833	335.278	334.500	330.444	330.111	330.139	332.389	333.000	333.555	T 3
STATOR F	PCT SPAN	95.81	92.01	86.21	69.91	49.21	29.51	14.11	9.31	4.51	PCT SPAN
	DIA	0.423	0.427	0.432	0.448	0.468	0.487	0.502	0.506	0.511	DIA
STATOR-L.E.	BETA 3	63.228	57.569	53.838	45.256	44.938	45.793	48.774	50.060	51.196	BETA 3
STATOR-T.E.	BETA 4	3.348	4.120	5.476	7.194	6.320	4.822	4.863	4.258	4.530	BETA 4
	V 3	287.65	294.27	300.68	305.45	290.55	274.35	267.61	265.11	262.67	V 3
	V 4	241.80	250.12	265.12	280.19	279.84	276.06	272.18	271.38	269.51	V 4
	VZ 3	129.57	157.81	177.41	214.95	205.46	190.93	175.93	169.75	164.14	VZ 3
	VZ 4	241.37	249.44	263.85	277.83	277.80	273.43	268.76	266.47	263.13	VZ 4
	V-THETA 3	256.81	248.37	242.73	216.68	205.02	196.30	200.77	202.73	204.13	V-THETA 3
	V-THETA 4	14.12	17.97	25.29	35.07	30.76	32.71	41.91	43.43	44.17	V-THETA 4
	M 3	0.8359	0.8588	0.8815	0.8941	0.8539	0.8000	0.7749	0.7661	0.7575	M 3
	M 4	0.6887	0.7154	0.7642	0.8188	0.8181	0.8056	0.7931	0.7864	0.7763	M 4
	TURN(PR)	59.879	53.447	48.356	38.047	38.571	38.879	39.788	40.672	41.529	TURN(PR)
	UUBAR	0.0955	0.1105	0.0825	0.0893	0.0858	0.0735	0.1170	0.1275	0.1423	UUBAR
	LOSS PARA	0.0306	0.0356	0.0270	0.0303	0.0307	0.0275	0.0452	0.0497	0.0559	LOSS PARA
	DFAC	0.4296	0.4042	0.3767	0.2876	0.2549	0.2217	0.2152	0.2179	0.2253	DFAC
	EFFP	0.7452	0.6929	0.7702	0.5821	0.0984	5.5703	3.2053	3.1220	3.5415	EFFP
	INCID	-1.773	-1.833	-1.969	-7.063	-7.717	-8.866	-8.887	-8.819	-9.201	INCID
	DEVM	8.598	10.119	11.275	11.940	10.412	10.805	12.825	12.409	11.769	DEVM
	P 3	14.043	14.522	14.974	15.641	15.327	14.859	14.790	14.752	14.733	P 3
	P 4	13.545	13.909	14.484	15.066	14.828	14.484	14.223	14.146	14.070	P 4
	T 3	335.833	335.278	334.500	330.444	330.111	330.139	332.389	333.000	333.555	T 3
	T 4	335.833	335.278	334.500	330.444	330.111	330.139	332.389	333.000	333.555	T 4

Table B-8. Blade Element Performance (Continued)
Stage F, Rotor F – Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 99.99 Equivalent Rotor Speed = 9934.52 Equivalent Weight Flow = 16.408 kg/sec
Tip Radial Distortion
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	95.79	91.71	86.89	70.41	49.21	29.10	13.80	9.00	4.70	PCT SPAN
	DIA	0.425	0.432	0.439	0.464	0.495	0.526	0.549	0.556	0.562	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	12.779	11.872	11.509	11.382	11.995	13.484	14.617	15.568	16.567	BETA 2
	V 1	164.28	163.35	163.48	157.31	140.35	110.10	86.28	83.03	81.24	V 1
	V 2	156.31	160.22	162.02	158.58	143.16	121.74	105.47	103.83	102.95	V 2
	VZ 1	164.27	163.34	163.47	157.25	140.21	109.90	86.06	82.81	81.00	VZ 1
	VZ 2	152.44	156.78	158.73	155.31	139.65	117.77	101.20	99.20	97.80	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	34.57	32.96	32.32	31.26	29.67	28.24	26.77	27.64	29.09	V-THETA 2
	M 1	0.4944	0.4915	0.4919	0.4725	0.4196	0.3270	0.2552	0.2455	0.2401	M 1
	M 2	0.4693	0.4816	0.4873	0.4765	0.4284	0.3624	0.3129	0.3080	0.3054	M 2
	TURN	-12.78	-11.87	-11.51	-11.37	-11.96	-13.41	-14.70	-15.44	-16.41	TURN
	UUBAR	0.1011	0.0579	0.0324	0.0126	0.0579	0.0538	0.0714	0.0579	0.0504	UUBAR
	DFAC	0.133	0.101	0.089	0.073	0.068	0.003	-0.089	-0.105	-0.108	DFAC
	EFFP	33.2845	-2.5997	-1.5577	0.5862	0.4296	0.8127	0.8771	0.9092	0.9250	EFFP
	INCID	5.9000	5.9200	5.9700	6.2500	6.6600	7.0000	7.3200	7.4200	7.4200	INCID
	DEVM	4.221	5.430	6.174	7.429	8.279	8.197	7.996	7.613	6.866	DEVM
	P 1	10.550	10.569	10.573	10.457	10.155	9.708	9.439	9.409	9.395	P 1
	P 2	10.386	10.476	10.520	10.438	10.088	9.670	9.409	9.387	9.376	P 2
	T 1	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 1
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	UUBAR FS										UUBAR FS
	P1 FS										P1 FS
	LOSS PARA FS										LOSS PARA FS
ROTOR F	PCT SPAN	95.01	89.99	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA	0.425	0.430	0.436	0.453	0.475	0.498	0.515	0.520	0.526	DIA
ROTOR -L.E.	BETA 2	9.446	8.921	8.682	8.691	9.327	10.717	11.934	12.543	13.314	BETA 2
ROTOR -T.E.	BETA 3	59.905	58.622	57.145	49.083	48.363	50.749	54.369	57.092	59.669	BETA 3
	BETA(PR) 2	41.738	41.999	42.330	44.639	50.169	56.889	61.928	62.543	62.955	BETA(PR) 2
	BETA(PR) 3	-15.558	-12.039	-6.621	4.462	12.010	18.551	21.581	22.210	23.134	BETA(PR) 3
	V 2	211.30	213.73	215.60	210.50	187.68	157.29	135.33	133.36	132.43	V 2
	V 3	305.05	301.87	299.35	292.05	278.41	262.79	257.07	255.43	254.00	V 3
	VZ 2	208.43	211.14	213.12	207.97	184.81	153.91	131.64	129.35	127.99	VZ 2
	VZ 3	192.67	196.94	162.36	191.23	184.84	166.04	149.50	138.53	128.05	VZ 3
	V-THETA 2	34.68	33.14	32.54	31.79	30.55	29.13	27.82	28.78	30.29	V-THETA 2
	V-THETA 3	263.43	257.33	251.39	220.63	207.92	203.21	208.57	214.07	218.85	V-THETA 3
	V(PR) 2	279.3	284.1	288.3	292.4	288.8	282.1	280.1	280.9	281.9	V(PR) 2
	V(PR) 3	159.6	161.3	164.4	191.9	189.3	175.7	161.5	150.4	140.0	V(PR) 3
	VTHETA PR2	-186.0	-190.1	-194.1	-205.4	-221.6	-236.0	-246.8	-248.9	-250.7	VTHETA PR2
	VTHETA PR3	42.5	33.5	24.6	-14.9	-39.3	-55.7	-59.1	-56.6	-54.7	VTHETA PR3
	U 2	220.63	223.25	226.67	237.16	251.93	265.12	274.64	277.72	281.00	U 2
	U 3	220.92	223.66	226.78	235.55	247.24	258.94	267.71	270.63	273.56	U 3
	M 2	0.6463	0.6544	0.6606	0.6437	0.5691	0.4724	0.4041	0.3980	0.3952	M 2
	M 3	0.8903	0.8799	0.8722	0.8557	0.8110	0.7589	0.7367	0.7295	0.7230	M 3
	M(PR) 2	0.8944	0.8899	0.8834	0.8940	0.8757	0.8473	0.8365	0.8386	0.8413	M(PR) 2
	M(PR) 3	0.4558	0.4703	0.4789	0.5624	0.5514	0.5074	0.4628	0.4295	0.3986	M(PR) 3
	TURN(PR)	57.184	53.972	50.941	40.165	38.119	38.285	40.304	40.296	39.792	TURN(PR)
	UUBAR	0.3468	0.3115	0.2668	0.0694	0.0275	0.0383	0.0722	0.1146	0.1495	UUBAR
	LOSS PARA	0.1076	0.0995	0.0875	0.0240	0.0099	0.0140	0.0270	0.0431	0.0565	LOSS PARA
	DFAC	0.6926	0.6904	0.6816	0.5664	0.5673	0.6122	0.6783	0.7282	0.7735	DFAC
	EFFP	0.7499	0.7680	0.7948	0.9439	0.9752	0.9725	0.9529	0.9266	0.8991	EFFP
	EFF	0.7346	0.7536	0.7817	0.9401	0.9734	0.9706	0.9493	0.9211	0.8915	EFF
	INCID	-13.912	-12.401	-11.671	-9.196	-4.341	1.325	5.114	4.838	3.788	INCID
	DEVM	18.454	14.127	11.388	12.459	9.790	8.991	10.179	11.191	13.396	DEVM
	P 2	10.386	10.476	10.520	10.438	10.088	9.670	9.409	9.387	9.376	P 2
	P 3	15.844	16.112	16.358	16.720	16.329	15.784	15.695	15.680	15.665	P 3
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	T 3	338.472	338.222	337.722	332.333	331.833	332.778	335.944	337.555	339.222	T 3
STATOR F	PCT SPAN	95.81	92.01	86.21	69.91	49.21	29.51	14.11	9.31	4.51	PCT SPAN
	DIA	0.423	0.427	0.432	0.448	0.468	0.487	0.502	0.506	0.511	DIA
STATOR-L.E.	BETA 3	60.493	57.583	54.936	46.371	45.954	48.558	52.114	54.706	57.161	BETA 3
STATOR-T.E.	BETA 4	11.894	11.936	11.913	11.795	10.357	9.688	9.649	9.639	9.648	BETA 4
	V 3	302.76	304.98	307.28	305.09	289.40	272.29	265.54	263.62	261.86	V 3
	V 4	175.71	181.73	191.96	204.25	195.57	184.59	183.73	185.63	187.72	V 4
	VZ 3	149.12	163.49	176.52	210.45	201.01	179.92	162.72	151.99	141.70	VZ 3
	VZ 4	171.93	177.78	187.78	199.84	192.15	181.52	180.36	182.07	183.90	VZ 4
	V-THETA 3	263.49	257.45	251.49	220.76	207.82	203.78	209.12	214.71	219.55	V-THETA 3
	V-THETA 4	36.21	37.58	39.62	41.73	35.12	30.99	30.66	30.92	31.26	V-THETA 4
	M 3	0.8826	0.8904	0.8990	0.8999	0.8475	0.7897	0.7637	0.7555	0.7478	M 3
	M 4	0.4876	0.5054	0.5358	0.5772	0.5516	0.5181	0.5131	0.5173	0.5221	M 4
	TURN(PR)	48.600	45.646	43.018	34.563	35.555	38.785	42.348	44.945	47.390	TURN(PR)
	UUBAR	0.0722	0.0816	0.0704	0.0616	0.0719	0.0686	0.0779	0.0679	0.0553	UUBAR
	LOSS PARA	0.0226	0.0258	0.0226	0.0206	0.0254	0.0255	0.0300	0.0264	0.0217	LOSS PARA
	DFAC	0.6601	0.6383	0.6027	0.5326	0.5413	0.5646	0.5747	0.5755	0.5746	DFAC
	EFFP	0.9154	0.9020	0.9114	0.9148	0.8962	0.8974	0.8777	0.8896	0.9067	EFFP
	INCID	-4.507	-1.820	-0.871	-5.948	-6.701	-6.101	-5.544	-4.166	-3.223	INCID
	DEVM	17.143	17.935	17.711	16.539	14.445	13.664	13.607	12.789	11.886	DEVM
	P 3	15.844	16.112	16.358	16.720	16.329	15.784	15.695	15.680	15.665	P 3
	P 4	15.389	15.583	15.869	16.299	15.889	15.419	15.303	15.344	15.397	P 4
	T 3	338.472	338.222	337.722	332.333	331.833	332.778	335.944	337.555	339.222	T 3
	T 4	338.472	338.222	337.722	332.333	331.833	332.778	335.944	337.555	339.222	T 4

Table B-8. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 100.39 Equivalent Rotor Speed = 9975.03 Equivalent Weight Flow = 15.517 kg/sec
Tip Radial Distortion
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	95.79	91.71	86.89	70.41	49.21	29.10	13.80	9.00	4.70	PCT SPAN
	DIA	0.425	0.432	0.439	0.464	0.495	0.526	0.549	0.556	0.562	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	11.920	11.389	11.267	11.284	11.801	13.393	15.280	16.625	18.258	BETA 2
	V 1	151.91	153.17	155.01	148.95	132.25	105.32	80.57	78.75	78.49	V 1
	V 2	145.30	149.14	151.11	147.40	131.98	110.47	97.71	95.95	95.86	V 2
	VZ 1	151.91	153.17	155.00	148.90	132.11	105.12	80.37	78.53	78.26	VZ 1
	VZ 2	142.16	146.19	148.16	144.41	128.82	106.90	93.55	91.19	90.24	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	30.01	29.45	29.52	28.81	26.91	25.45	25.56	27.23	29.77	V-THETA 2
	M 1	0.4556	0.4595	0.4653	0.4463	0.3946	0.3125	0.2381	0.2327	0.2319	M 1
	M 2	0.4350	0.4469	0.4531	0.4415	0.3938	0.3281	0.2895	0.2842	0.2840	M 2
	TURN	-11.92	-11.39	-11.26	-11.27	-11.77	-13.32	-15.16	-16.49	-18.09	TURN
	UUBAR	0.0799	0.0600	0.0534	0.0388	0.0857	0.1385	0.0201	0.0421	0.0423	UUBAR
	DFAC	0.123	0.104	0.102	0.089	0.086	0.053	-0.077	-0.067	-0.053	DFAC
	EFFP	7.2563	-17.1518	50.2727	-1.3812	-0.0533	0.4294	0.9600	0.9221	0.9225	EFFP
	INCID	5.9000	5.9200	5.9700	6.2500	6.6600	7.0000	7.3200	7.4200	7.4200	INCID
	DEVM	5.080	5.912	6.416	7.528	8.473	8.289	7.536	6.564	5.188	DEVM
	P 1	10.446	10.501	10.538	10.431	10.150	9.774	9.508	9.493	9.493	P 1
	P 2	10.335	10.416	10.460	10.379	10.062	9.685	9.501	9.479	9.479	P 2
	T 1	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 1
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	UUBAR FS										UUBAR FS
	P1 FS										P1 FS
	LOSS PARA FS										LOSS PARA FS
ROTOR F	PCT SPAN	95.01	89.99	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA	0.425	0.430	0.436	0.453	0.475	0.498	0.515	0.520	0.526	DIA
ROTOR -L.E.	BETA 2	8.999	8.735	8.675	8.783	9.310	10.751	12.371	13.461	14.731	BETA 2
ROTOR -T.E.	BETA 3	59.523	58.696	57.965	50.190	44.972	50.343	55.728	58.874	61.816	BETA 3
	BETA(PR) 2	45.205	45.269	45.447	47.761	53.309	60.047	64.081	64.692	64.857	BETA(PR) 2
	BETA(PR) 3	-12.630	-9.988	-7.122	5.222	12.540	18.858	21.883	21.586	21.321	BETA(PR) 3
	V 2	192.44	194.99	197.07	191.97	170.57	141.33	124.71	122.57	122.71	V 2
	V 3	297.80	295.07	293.15	266.17	273.36	263.56	255.80	256.62	258.11	V 3
	VZ 2	190.07	192.73	194.81	189.62	167.97	138.27	121.11	118.45	117.88	VZ 2
	VZ 3	150.75	153.08	157.18	183.17	175.69	167.96	143.81	132.44	121.72	VZ 3
	V-THETA 2	30.10	29.61	29.72	29.30	27.53	26.25	26.56	28.35	30.99	V-THETA 2
	V-THETA 3	256.16	251.73	247.34	219.77	209.17	202.62	211.04	219.33	227.17	V-THETA 3
	V(PR) 2	269.8	273.8	277.7	282.1	281.3	277.2	277.4	277.4	277.8	V(PR) 2
	V(PR) 3	155.7	156.3	158.6	184.1	180.3	178.0	155.7	143.2	131.4	V(PR) 3
	VTHETA PR2	-191.4	-194.5	-197.9	-208.8	-225.4	-239.9	-249.2	-250.5	-251.2	VTHETA PR2
	VTHETA PR3	34.3	27.0	19.6	-16.7	-39.1	-57.4	-57.8	-52.4	-47.5	VTHETA PR3
	U 2	221.53	224.16	227.60	238.13	252.96	266.20	275.76	278.86	282.15	U 2
	U 3	221.82	224.77	227.70	230.51	248.25	259.99	268.80	271.73	274.68	U 3
	M 2	0.5845	0.5928	0.5996	0.5830	0.5143	0.4227	0.3715	0.3649	0.3654	M 2
	M 3	0.8004	0.8575	0.8515	0.8354	0.7927	0.7605	0.7312	0.7314	0.7336	M 3
	M(PR) 2	0.8194	0.8325	0.8448	0.8568	0.8483	0.8291	0.8263	0.8261	0.8272	M(PR) 2
	M(PR) 3	0.4530	0.4542	0.4606	0.5373	0.5228	0.5138	0.4450	0.4080	0.3735	M(PR) 3
	TURN(PR)	57.942	55.204	52.561	42.527	40.731	41.144	42.165	43.075	43.507	TURN(PR)
	UUBAR	0.3584	0.3303	0.2854	0.1028	0.0684	0.0142	0.1011	0.1386	0.1657	UUBAR
	LOSS PARA	0.1126	0.1063	0.0952	0.0355	0.0245	0.0052	0.0377	0.0524	0.0635	LOSS PARA
	DFAC	0.6929	0.6947	0.6889	0.5806	0.5932	0.6001	0.7015	0.7590	0.8122	DFAC
	EFFP	0.7544	0.7677	0.7896	0.9245	0.9436	0.9941	0.9355	0.9168	0.8996	EFFP
	EFF	0.7394	0.7533	0.7762	0.9193	0.9399	0.9937	0.9306	0.9105	0.8918	EFF
	INCID	-10.445	-9.131	-8.554	-6.074	-1.200	4.490	7.274	6.995	5.699	INCID
	DEVM	21.168	16.167	12.886	13.219	10.319	9.296	10.479	10.570	11.592	DEVM
	P 2	10.335	10.416	10.460	10.379	10.062	9.685	9.501	9.479	9.479	P 2
	P 3	15.768	15.990	16.219	16.536	16.241	16.093	15.879	15.990	16.137	P 3
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	T 3	338.167	338.000	337.722	332.778	333.111	333.444	337.111	339.167	341.222	T 3
STATOR F	PCT SPAN	95.81	92.01	86.21	69.91	49.21	29.51	14.11	9.31	4.51	PCT SPAN
	DIA	0.423	0.427	0.432	0.448	0.468	0.487	0.502	0.506	0.511	DIA
STATOR-L.E.	BETA 3	59.982	57.797	55.695	47.770	47.676	48.167	53.411	56.310	58.987	BETA 3
STATOR-T.E.	BETA 4	10.566	10.696	10.831	11.032	10.174	8.687	8.364	8.225	8.049	BETA 4
	V 3	295.91	297.64	299.71	297.08	283.03	273.16	264.06	264.91	266.41	V 3
	V 4	159.37	166.97	178.08	190.03	184.77	177.41	181.02	183.61	187.95	V 4
	VZ 3	148.04	150.61	154.08	199.01	190.40	181.88	157.08	146.66	137.00	VZ 3
	VZ 4	156.66	164.05	174.87	186.42	181.64	174.94	178.33	180.78	184.92	VZ 4
	V-THETA 3	256.22	251.85	247.44	219.90	209.07	203.18	211.59	219.99	227.89	V-THETA 3
	V-THETA 4	29.22	30.99	33.46	36.35	32.80	26.73	26.22	26.13	26.15	V-THETA 4
	M 3	0.8600	0.8661	0.8734	0.8720	0.8245	0.7916	0.7575	0.7576	0.7598	M 3
	M 4	0.4406	0.4626	0.4951	0.5343	0.5184	0.4964	0.5042	0.5101	0.5212	M 4
	TURN(PR)	49.416	47.100	44.819	36.724	37.459	39.393	44.927	47.961	50.810	TURN(PR)
	UUBAR	0.1039	0.1026	0.0872	0.0788	0.0808	0.1165	0.0794	0.0890	0.0921	UUBAR
	LOSS PARA	0.0326	0.0326	0.0281	0.0269	0.0286	0.0435	0.0307	0.0348	0.0364	LOSS PARA
	DFAC	0.7071	0.6800	0.6413	0.5731	0.5740	0.5972	0.5928	0.6002	0.6012	DFAC
	EFFP	0.8838	0.8817	0.8946	0.8981	0.8877	0.8356	0.8770	0.8591	0.8494	EFFP
	INCID	-5.019	-1.605	-0.152	-4.549	-4.979	-6.492	-4.245	-2.558	-1.392	INCID
	DEVM	15.815	16.695	16.629	15.776	14.262	12.665	12.328	11.381	10.298	DEVM
	P 3	15.768	15.990	16.219	16.536	16.241	16.093	15.879	15.990	16.137	P 3
	P 4	15.141	15.355	15.605	16.027	15.768	15.458	15.480	15.539	15.665	P 4
	T 3	338.167	338.000	337.722	332.778	333.111	333.444	337.111	339.167	341.222	T 3
	T 4	338.167	338.000	337.722	332.778	333.111	333.444	337.111	339.167	341.222	T 4

Table B-8. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 84.73 Equivalent Rotor Speed = 8418.75 Equivalent Weight Flow = 16.537 kg/sec
Tip Radial Distortion
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	95.79	91.71	86.89	70.41	49.21	29.10	13.80	9.00	4.70	PCT SPAN
	DIA	0.425	0.432	0.439	0.464	0.495	0.526	0.549	0.556	0.562	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	12.066	11.946	11.521	11.327	12.134	13.826	15.145	15.787	16.247	BETA 2
	V 1	162.89	162.91	163.60	157.64	139.24	106.25	85.00	82.50	82.26	V 1
	V 2	157.45	160.25	162.32	158.30	142.73	120.22	106.02	104.38	104.75	V 2
	VZ 1	162.89	162.91	163.59	157.58	139.10	106.05	84.78	82.27	82.02	VZ 1
	VZ 2	153.62	156.76	159.02	155.66	139.15	116.13	101.58	99.62	99.67	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	34.52	33.17	32.41	31.06	29.92	28.58	27.49	28.17	29.05	V-THETA 2
	M 1	0.4900	0.4901	0.4923	0.4735	0.4162	0.3153	0.2513	0.2439	0.2432	M 1
	M 2	0.4729	0.4817	0.4882	0.4756	0.4270	0.3578	0.3146	0.3097	0.3108	M 2
	TURN	-12.67	-11.95	-11.52	-11.32	-12.10	-13.75	-15.03	-15.65	-16.10	TURN
	UUBAR	0.0705	0.0562	0.0325	0.0252	0.0526	0.0233	0.0185	0.0197	0.0	UUBAR
	DFAC	0.119	0.099	0.088	0.076	0.064	-0.018	-0.108	-0.116	-0.116	DFAC
	EFFP	38.2873	-1.7551	-1.1462	0.2683	0.5091	0.9264	0.9687	0.9692	0.9999	EFFP
	INCID	5.9000	5.9200	5.9700	6.2500	6.6600	7.0000	7.3200	7.4200	7.4200	INCID
	DEVM	4.334	5.353	6.162	7.484	8.140	7.857	7.671	7.396	7.182	DEVM
	P 1	10.536	10.574	10.569	10.476	10.146	9.666	9.434	9.411	9.411	P 1
	P 2	10.424	10.484	10.536	10.439	10.086	9.651	9.426	9.404	9.411	P 2
	T 1	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 1
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	UUBAR FS										UUBAR FS
	P1 FS										P1 FS
	LOSS PARA FS										LOSS PARA FS
ROTOR F	PCT SPAN	95.01	89.99	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA	0.425	0.430	0.436	0.453	0.475	0.498	0.515	0.520	0.526	DIA
ROTOR -L.E.	BETA 2	9.338	8.977	8.686	8.654	9.440	11.003	12.190	12.712	13.042	BETA 2
ROTOR -T.E.	BETA 3	56.437	52.959	50.212	42.740	42.688	44.891	46.825	48.524	50.505	BETA 3
	BETA(PR) 2	35.885	36.426	36.734	39.225	44.613	52.162	57.066	57.748	57.873	BETA(PR) 2
	BETA(PR) 3	-13.066	-8.817	-5.670	4.396	11.225	17.690	20.749	21.842	23.091	BETA(PR) 3
	V 2	213.40	213.78	216.14	210.61	187.00	155.10	136.09	134.11	134.92	V 2
	V 3	266.18	269.73	272.75	271.63	254.55	235.93	230.07	226.60	222.90	V 3
	VZ 2	210.57	211.16	213.65	207.51	184.08	151.61	132.26	130.00	130.55	VZ 2
	VZ 3	146.81	162.14	174.47	199.42	186.93	166.85	157.03	149.69	141.38	VZ 3
	V-THETA 2	34.63	33.36	32.64	31.58	30.61	29.48	28.57	29.33	30.24	V-THETA 2
	V-THETA 3	221.29	214.65	209.50	184.26	172.42	166.21	167.37	169.34	171.54	V-THETA 3
	V(PR) 2	259.9	262.4	266.6	268.0	259.8	247.6	243.7	244.1	246.0	V(PR) 2
	V(PR) 3	151.8	165.0	175.5	200.1	190.9	175.7	168.7	162.1	154.6	V(PR) 3
	VTHETA PR2	-152.3	-155.8	-159.4	-169.4	-182.9	-195.2	-204.2	-206.0	-207.9	VTHETA PR2
	VTHETA PR3	34.1	25.2	17.3	-15.3	-37.1	-53.2	-59.5	-60.0	-60.3	VTHETA PR3
	U 2	186.97	189.19	192.09	200.98	213.49	224.67	232.74	235.35	238.13	U 2
	U 3	167.22	189.70	192.18	199.61	209.52	219.43	226.86	229.34	231.82	U 3
	M 2	0.6533	0.6546	0.6624	0.6421	0.5669	0.4655	0.4065	0.4004	0.4029	M 2
	M 3	0.7829	0.7952	0.8061	0.8074	0.7516	0.6910	0.6706	0.6590	0.6466	M 3
	M(PR) 2	0.7957	0.8035	0.8171	0.8192	0.7875	0.7431	0.7279	0.7286	0.7345	M(PR) 2
	M(PR) 3	0.4465	0.4864	0.5187	0.5949	0.5637	0.5146	0.4917	0.4714	0.4484	M(PR) 3
	TURN(PR)	48.655	45.195	42.396	34.817	33.546	34.411	36.257	35.851	34.734	TURN(PR)
	UUBAR	0.3915	0.3139	0.2409	0.0286	0.0106	0.0133	0.0110	0.0453	0.0908	UUBAR
	LOSS PARA	0.1228	0.1013	0.0795	0.0099	0.0038	0.0049	0.0041	0.0171	0.0343	LOSS PARA
	DFAC	0.6475	0.5977	0.5617	0.4497	0.4627	0.5004	0.5324	0.5647	0.6033	DFAC
	EFFP	0.6417	0.7069	0.7712	0.9730	0.9879	0.9913	0.9946	0.9676	0.9284	EFFP
	EFF	0.6285	0.6952	0.7613	0.9717	0.9873	0.9908	0.9943	0.9680	0.9248	EFF
	INCID	-19.765	-17.974	-17.268	-14.610	-9.698	-3.408	0.237	0.026	-1.313	INCID
	DEVM	20.929	17.332	14.336	12.393	9.006	8.132	9.350	10.826	13.353	DEVM
	P 2	10.424	10.484	10.536	10.439	10.086	9.651	9.426	9.404	9.411	P 2
	P 3	13.461	13.851	14.211	14.660	14.128	13.551	13.461	13.378	13.288	P 3
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	T 3	322.917	322.500	321.944	318.389	317.667	317.778	319.222	319.778	320.444	T 3
STATOR F	PCT SPAN	95.81	92.01	86.21	69.91	49.21	29.51	14.11	9.31	4.51	PCT SPAN
	DIA	0.423	0.427	0.432	0.448	0.468	0.487	0.502	0.506	0.511	DIA
STATOR-L.E.	BETA 3	56.619	52.380	49.086	41.179	41.181	43.496	45.421	47.109	49.085	BETA 3
STATOR-T.E.	BETA 4	7.434	7.903	8.562	9.107	8.087	8.149	9.652	9.793	9.760	BETA 4
	V 3	265.07	271.39	277.37	280.16	262.03	242.64	236.26	232.50	228.43	V 3
	V 4	205.58	214.12	227.71	244.12	234.96	221.48	217.57	216.00	214.62	V 4
	VZ 3	145.84	165.66	181.64	210.79	197.00	175.66	165.36	157.78	149.15	VZ 3
	VZ 4	203.84	212.06	225.12	240.91	232.34	218.71	213.58	211.75	210.17	VZ 4
	V-THETA 3	221.34	214.95	209.58	184.39	172.34	166.67	167.81	169.84	172.09	V-THETA 3
	V-THETA 4	26.60	29.44	33.89	38.62	33.01	31.32	36.32	36.55	36.15	V-THETA 4
	M 3	0.7792	0.8007	0.8215	0.8362	0.7763	0.7126	0.6904	0.6777	0.6640	M 3
	M 4	0.5902	0.6170	0.6601	0.7167	0.6880	0.6450	0.6312	0.6257	0.6207	M 4
	TURN(PR)	49.185	44.476	40.519	32.058	33.049	35.258	35.648	37.186	39.186	TURN(PR)
	UUBAR	0.0995	0.1116	0.0884	0.0591	0.0630	0.0925	0.1388	0.1397	0.1322	UUBAR
	LOSS PARA	0.0315	0.0357	0.0287	0.0200	0.0224	0.0345	0.0535	0.0544	0.0520	LOSS PARA
	DFAC	0.4597	0.4330	0.3880	0.3079	0.2969	0.3006	0.3004	0.3015	0.3023	DFAC
	EFFP	0.7979	0.7631	0.7866	0.8104	0.7440	0.5422	0.2326	0.1383	0.0431	EFFP
	INCID	-8.381	-7.022	-6.721	-11.140	-11.474	-11.163	-12.242	-11.772	-11.316	INCID
	DEVM	12.684	13.902	14.360	13.853	12.177	12.129	13.611	12.942	11.998	DEVM
	P 3	13.461	13.851	14.211	14.660	14.128	13.551	13.461	13.378	13.288	P 3
	P 4	13.018	13.318	13.761	14.342	13.836	13.191	12.951	12.883	12.838	P 4
	T 3	322.917	322.500	321.944	318.389	317.667	317.778	319.222	319.778	320.444	T 3
	T 4	322.917	322.500	321.944	318.389	317.667	317.778	319.222	319.778	320.444	T 4

ORIGINAL PAGE IS
OF POOR QUALITY

Table B-8. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 84.76 Equivalent Rotor Speed = 8422.00 Equivalent Weight Flow = 14.371 kg/sec
Tip Radial Distortion
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	95.79	91.71	86.89	70.41	49.21	29.10	13.80	9.00	4.70	PCT SPAN
	DIA	0.425	0.432	0.439	0.464	0.495	0.526	0.549	0.556	0.562	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	11.982	11.665	11.381	11.181	11.731	13.417	15.142	15.947	16.749	BETA 2
	V 1	136.09	136.89	137.74	134.43	118.07	93.60	70.87	70.28	70.11	V 1
	V 2	131.99	135.03	137.36	133.27	119.58	100.06	85.99	85.29	84.59	V 2
	VZ 1	136.09	136.89	137.73	134.38	117.94	93.43	70.69	70.09	69.91	VZ 1
	VZ 2	129.11	132.23	134.63	130.61	116.76	96.82	82.39	81.34	80.28	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	27.40	27.30	27.10	25.82	24.24	23.10	22.29	23.24	24.16	V-THETA 2
	M 1	0.4065	0.4089	0.4116	0.4013	0.3512	0.2772	0.2092	0.2074	0.2069	M 1
	M 2	0.3938	0.4032	0.4104	0.3978	0.3558	0.2966	0.2543	0.2522	0.2501	M 2
	TURN	-11.98	-11.66	-11.38	-11.17	-11.70	-13.35	-15.03	-15.81	-16.60	TURN
	UUBAR	0.0590	0.0420	0.0127	0.0403	0.0530	0.0860	0.0254	0.0387	0.0648	UUBAR
	DFAC	0.111	0.094	0.083	0.087	0.072	0.035	-0.078	-0.069	-0.053	DFAC
	EFFP	13.7787	-2.2499	-0.9202	-0.8429	0.3398	0.6319	0.9501	0.9256	0.8775	EFFP
	INCID	5.4000	5.9200	5.9700	6.2500	6.6600	7.0000	7.3200	7.4200	7.4200	INCID
	DEVM	5.019	5.636	6.302	7.630	8.542	8.264	7.673	7.237	6.685	DEVM
	P 1	10.391	10.428	10.443	10.391	10.142	9.835	9.615	9.611	9.611	P 1
	P 2	10.325	10.380	10.428	10.347	10.098	9.791	9.608	9.600	9.593	P 2
	T 1	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 1
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	UUBAR FS										UUBAR FS
	P1 FS										P1 FS
	LOSS PARA FS										LOSS PARA FS
ROTOR F	PCT SPAN	95.01	89.99	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA	0.425	0.430	0.436	0.453	0.475	0.498	0.515	0.520	0.526	DIA
ROTOR -L.E.	BETA 2	9.212	9.117	8.929	8.864	9.371	10.852	12.344	12.995	13.614	BETA 2
ROTOR -T.E.	BETA 3	58.024	56.086	54.152	47.150	40.291	48.411	52.610	55.312	58.110	BETA 3
	BETA(PR) 2	43.278	43.412	43.510	46.082	51.473	58.262	63.206	63.600	64.013	BETA(PR) 2
	BETA(PR) 3	-13.056	-9.654	-6.520	4.634	12.269	19.320	22.001	23.120	24.521	BETA(PR) 3
	V 2	171.66	173.23	175.82	170.44	152.65	127.07	109.01	106.30	107.59	V 2
	V 3	258.71	258.67	258.62	253.41	240.26	224.19	218.67	215.79	213.15	V 3
	VZ 2	169.45	171.04	173.68	168.32	150.30	124.28	105.88	104.86	103.86	VZ 2
	VZ 3	136.72	144.07	151.40	172.28	165.88	148.58	132.53	122.57	112.40	VZ 3
	V-THETA 2	27.48	27.45	27.29	26.25	24.80	23.82	23.17	24.20	25.15	V-THETA 2
	V-THETA 3	218.99	214.28	209.55	185.72	173.53	167.42	173.40	177.09	180.64	V-THETA 3
	V(PR) 2	232.7	235.5	239.5	242.7	241.5	236.5	235.2	236.1	237.4	V(PR) 2
	V(PR) 3	141.4	146.9	152.5	173.0	170.0	157.9	143.6	133.9	124.2	V(PR) 3
	VTHETA PR2	-159.6	-161.8	-164.9	-174.8	-188.8	-200.9	-209.7	-211.2	-213.1	VTHETA PR2
	VTHETA PR3	31.7	24.5	17.3	-14.0	-36.1	-52.1	-53.5	-52.3	-51.3	VTHETA PR3
	U 2	187.04	189.26	192.16	201.05	213.58	224.75	232.83	235.44	238.22	U 2
	U 3	187.29	189.77	192.25	199.69	209.60	219.51	226.95	229.43	231.91	U 3
	M 2	0.5178	0.5228	0.5310	0.5[illegible]9	0.4579	0.3787	0.3237	0.3215	0.3194	M 2
	M 3	0.7570	0.7573	0.7577	0.[illegible]52	0.7034	0.6519	0.6319	0.6219	0.6128	M 3
	M(PR) 2	0.7021	0.7106	0.7233	0.7319	0.7244	0.7050	0.6963	0.7011	0.7046	M(PR) 2
	M(PR) 3	0.4136	0.4302	0.4470	0.5086	0.4978	0.4593	0.4149	0.3860	0.3572	M(PR) 3
	TURN(PR)	56.139	53.012	50.021	41.437	39.165	38.894	41.169	40.451	39.474	TURN(PR)
	UUBAR	0.3270	0.2786	0.2289	0.0495	0.0041	0.0094	0.0613	0.1071	0.1530	UUBAR
	LOSS PARA	0.1026	0.0897	0.0754	0.0171	0.0015	0.0034	0.0228	0.0400	0.0572	LOSS PARA
	DFAC	0.6579	0.6356	0.6155	0.5141	0.5190	0.5634	0.6417	0.6914	0.7413	DFAC
	EFFP	0.7621	0.7918	0.8229	0.9621	0.9979	0.9952	0.9589	0.9267	0.8963	EFFP
	EFF	0.7514	0.7822	0.8144	0.9602	0.9978	0.9950	0.9567	0.9228	0.8908	EFF
	INCID	-12.372	-10.988	-10.491	-7.755	-3.037	2.702	6.396	5.899	4.851	INCID
	DEVM	20.939	16.499	13.467	12.631	10.048	9.758	10.597	12.098	14.777	DEVM
	P 2	10.325	10.380	10.428	10.347	10.098	9.791	9.608	9.600	9.593	P 2
	P 3	14.115	14.316	14.507	14.683	14.412	14.001	13.921	13.870	13.811	P 3
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	T 3	324.000	323.611	323.167	319.722	319.055	319.333	321.833	322.778	323.667	T 3
STATOR F	PCT SPAN	95.81	92.01	86.21	69.91	49.21	29.51	14.11	9.31	4.51	PCT SPAN
	DIA	0.423	0.427	0.432	0.448	0.468	0.487	0.502	0.506	0.511	DIA
STATOR-L.E.	BETA 3	58.200	55.533	53.101	45.772	44.637	47.012	51.076	53.692	56.395	BETA 3
STATOR-T.E.	BETA 4	14.635	13.819	12.621	10.801	10.041	10.215	10.542	10.347	10.055	BETA 4
	V 3	257.73	260.04	262.17	259.43	246.23	229.92	223.98	220.91	218.06	V 3
	V 4	160.01	165.62	175.18	182.79	174.15	163.63	162.32	161.97	161.64	V 4
	VZ 3	135.82	147.16	157.39	180.90	174.43	156.49	140.41	130.52	120.42	VZ 3
	VZ 4	154.81	160.80	170.92	179.46	171.27	160.64	158.91	158.51	158.15	VZ 4
	V-THETA 3	219.04	214.38	209.64	185.84	173.44	167.88	173.86	177.62	181.22	V-THETA 3
	V-THETA 4	40.43	39.55	38.27	34.24	30.33	28.95	29.57	28.94	28.04	V-THETA 4
	M 3	0.7538	0.7618	0.7694	0.7649	0.7227	0.6700	0.6485	0.6378	0.6280	M 3
	M 4	0.4524	0.4693	0.4980	0.5238	0.4983	0.4666	0.4609	0.4591	0.4575	M 4
	TURN(PR)	43.565	41.713	40.476	34.957	34.753	36.713	40.420	43.225	46.217	TURN(PR)
	UUBAR	0.0554	0.0641	0.0514	0.0466	0.0640	0.0584	0.0662	0.0595	0.0500	UUBAR
	LOSS PARA	0.0171	0.0201	0.0165	0.0156	0.0227	0.0217	0.0254	0.0231	0.0196	LOSS PARA
	DFAC	0.6012	0.5816	0.5475	0.4966	0.5042	0.5194	0.5310	0.5369	0.5436	DFAC
	EFFP	0.9258	0.9115	0.9244	0.9248	0.8934	0.8993	0.8800	0.8890	0.9040	EFFP
	INCID	-6.801	-5.870	-2.706	-6.547	-7.818	-7.647	-6.583	-5.182	-3.992	INCID
	DEVM	19.885	19.818	18.418	15.546	14.129	14.190	14.497	13.493	12.291	DEVM
	P 3	14.115	14.316	14.507	14.683	14.412	14.001	13.921	13.870	13.811	P 3
	P 4	13.870	14.023	14.265	14.463	14.141	13.789	13.694	13.672	13.650	P 4
	T 3	324.000	323.611	323.167	319.722	319.055	319.333	321.833	322.778	323.667	T 3
	T 4	324.000	323.611	323.167	319.722	319.055	319.333	321.833	322.778	323.667	T 4

Table B-8. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 84.77 Equivalent Rotor Speed = 8422.28 Equivalent Weight Flow = 13.149 kg/sec
Tip Radial Distortion
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	95.79	91.71	86.89	70.41	49.21	29.10	13.80	9.00	4.70	PCT SPAN
	DIA	0.425	0.432	0.439	0.464	0.495	0.526	0.549	0.556	0.562	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	12.000	11.414	11.129	10.828	11.652	13.541	15.162	15.770	16.388	BETA 2
	V 1	123.62	125.24	126.37	120.63	107.80	84.97	65.27	63.24	64.00	V 1
	V 2	119.47	122.95	124.57	121.56	109.97	92.87	80.94	79.24	78.83	V 2
	VZ 1	123.62	125.24	126.36	120.59	107.69	84.81	65.11	63.07	63.81	VZ 1
	VZ 2	116.85	120.51	122.20	119.28	107.40	89.82	77.54	75.64	74.95	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	24.84	24.33	24.04	22.81	22.15	21.63	21.01	21.36	22.04	V-THETA 2
	M 1	0.3682	0.3731	0.3766	0.3590	0.3200	0.2513	0.1925	0.1865	0.1887	M 1
	M 2	0.3555	0.3661	0.3711	0.3619	0.3266	0.2750	0.2392	0.2341	0.2329	M 2
	TURN	-12.00	-11.41	-11.13	-10.82	-11.62	-13.47	-15.05	-15.64	-16.24	TURN
	UUBAR	0.0705	0.0532	0.0410	0.0082	0.0312	0.0170	-0.0876	-0.0778	-0.0304	UUBAR
	DFAC	0.115	0.097	0.091	0.070	0.065	0.015	-0.102	-0.105	-0.078	DFAC
	EFFP	-113.2095	-2.5832	-2.7764	0.6633	0.5768	0.9216	1.1903	1.1548	1.0612	EFFP
	INCID	5.9000	5.9200	5.9700	6.2500	6.6600	7.0000	7.3200	7.4200	7.4200	INCID
	DEVM	5.001	5.887	6.554	7.983	8.621	8.141	7.653	7.412	7.043	DEVM
	P 1	10.349	10.388	10.407	10.323	10.150	9.889	9.715	9.701	9.708	P 1
	P 2	10.280	10.338	10.367	10.316	10.128	9.882	9.737	9.719	9.715	P 2
	T 1	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 1
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	UUBAR FS										UUBAR FS
	P1 FS										P1 FS
	LOSS PARA FS										LOSS PARA FS

ROTOR F	PCT SPAN	95.01	89.99	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA	0.425	0.430	0.436	0.453	0.475	0.498	0.515	0.520	0.526	DIA
ROTOR -L.E.	BETA 2	9.347	9.032	8.849	8.683	9.381	10.999	12.392	12.891	13.361	BETA 2
ROTOR -T.E.	BETA 3	61.162	58.442	56.033	49.526	49.912	52.468	56.385	59.420	62.492	BETA 3
	BETA(PR) 2	46.971	46.959	47.208	49.504	54.306	60.446	64.778	65.495	65.830	BETA(PR) 2
	BETA(PR) 3	-13.032	-9.139	-6.026	5.377	12.403	19.634	22.517	23.452	24.847	BETA(PR) 3
	V 2	153.36	155.83	157.37	153.73	139.31	117.43	102.35	100.33	99.98	V 2
	V 3	245.47	247.52	249.04	243.07	231.35	217.56	214.00	212.45	210.98	V 3
	VZ 2	151.35	153.90	155.49	151.89	137.16	114.79	99.39	97.18	96.61	VZ 2
	VZ 3	118.19	129.34	139.44	157.73	148.87	132.36	118.28	107.91	97.31	VZ 3
	V-THETA 2	24.91	24.46	24.21	23.20	22.66	22.31	21.84	22.24	22.95	V-THETA 2
	V-THETA 3	214.65	210.59	206.98	184.85	176.87	172.30	177.92	182.62	186.86	V-THETA 3
	V(PR) 2	221.8	225.5	228.9	233.9	235.3	233.0	233.5	234.6	236.3	V(PR) 2
	V(PR) 3	122.2	131.7	140.4	158.5	152.7	141.0	128.6	118.2	107.8	V(PR) 3
	VTHETA PR2	-162.1	-164.8	-168.0	-177.9	-190.9	-202.5	-211.0	-213.2	-215.3	VTHETA PR2
	VTHETA PR3	27.4	20.8	14.7	-14.8	-32.7	-47.2	-49.0	-46.8	-45.1	VTHETA PR3
	U 2	187.05	189.27	192.17	201.06	213.58	224.76	232.84	235.45	238.23	U 2
	U 3	187.29	189.78	192.26	199.69	209.61	219.52	226.96	229.43	231.92	U 3
	M 2	0.4602	0.4679	0.4727	0.4613	0.4164	0.3493	0.3035	0.2974	0.2964	M 2
	M 3	0.7147	0.7215	0.7286	0.7112	0.6735	0.6296	0.6160	0.6101	0.6043	M 3

	M(PR) 2	0.6654	0.6770	0.6875	0.7020	0.7032	0.6929	0.6924	0.6954	0.7003	M(PR) 2
	M(PR) 3	0.3557	0.3840	0.4096	0.4638	0.4445	0.4079	0.3702	0.3395	0.3088	M(PR) 3
	TURN(PR)	59.909	56.047	53.227	44.116	41.866	40.770	42.233	42.023	40.975	TURN(PR)
	UUBAR	0.3668	0.3045	0.2387	0.0871	0.0667	0.0771	0.1125	0.1589	0.2013	UUBAR
	LOSS PARA	0.1151	0.0982	0.0787	0.0301	0.0239	0.0281	0.0418	0.0592	0.0751	LOSS PARA
	DFAC	0.7249	0.6860	0.6517	0.5608	0.5886	0.6401	0.7133	0.7693	0.8240	DFAC
	EFFP	0.7556	0.7909	0.8327	0.9375	0.9475	0.9452	0.9259	0.9029	0.8716	EFFP
	EFF	0.7448	0.7813	0.8246	0.9344	0.9448	0.9424	0.9219	0.8977	0.8646	EFF
	INCID	-6.679	-7.441	-6.793	-4.331	-0.202	4.890	7.974	7.802	6.676	INCID
	DEVM	20.962	17.012	13.980	13.373	10.182	10.070	11.111	12.429	15.102	DEVM
	P 2	10.280	10.338	10.367	10.316	10.128	9.882	9.737	9.719	9.715	P 2
	P 3	13.565	14.225	14.479	14.566	14.377	14.081	14.109	14.099	14.088	P 3
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	T 3	323.555	323.389	323.167	320.111	320.278	320.722	323.111	324.167	325.500	T 3

STATOR F	PCT SPAN	95.81	92.01	86.21	69.91	49.21	29.51	14.11	9.31	4.51	PCT SPAN
	DIA	0.423	0.427	0.432	0.448	0.468	0.487	0.502	0.506	0.511	DIA
STATOR-L.E.	BETA 3	61.350	57.911	55.018	48.194	48.384	50.945	54.694	57.586	60.501	BETA 3
STATOR-T.E.	BETA 4	15.309	14.575	13.630	12.170	11.101	10.795	10.536	10.241	10.031	BETA 4
	V 3	244.66	246.69	252.74	248.21	236.66	222.83	219.01	217.37	215.75	V 3
	V 4	130.03	143.49	154.13	165.86	159.66	152.97	154.46	156.42	158.73	V 4
	VZ 3	117.30	132.11	144.89	165.41	157.04	140.19	126.34	116.30	106.05	VZ 3
	VZ 4	131.19	138.86	149.76	162.05	156.49	149.90	151.21	153.14	155.31	VZ 4
	V-THETA 3	214.70	210.69	207.06	184.96	176.78	172.78	178.39	183.16	187.46	V-THETA 3
	V-THETA 4	35.91	36.11	36.31	34.95	30.70	28.58	28.12	27.67	27.47	V-THETA 4
	M 3	0.7121	0.7252	0.7386	0.7278	0.6904	0.6461	0.6316	0.6254	0.6190	M 3
	M 4	0.3827	0.4045	0.4357	0.4726	0.4541	0.4340	0.4367	0.4418	0.4476	M 4
	TURN(PR)	46.041	43.335	41.384	36.011	37.241	40.069	44.049	47.233	50.360	TURN(PR)
	UUBAR	0.0886	0.1068	0.1053	0.0619	0.0738	0.0609	0.0741	0.0609	0.0451	UUBAR
	LOSS PARA	0.0273	0.0334	0.0336	0.0207	0.0261	0.0226	0.0284	0.0237	0.0177	LOSS PARA
	DFAC	0.6781	0.6511	0.6130	0.5399	0.5500	0.5609	0.5670	0.5674	0.5650	DFAC
	EFFP	0.8914	0.8649	0.8598	0.9069	0.8852	0.9007	0.8721	0.8902	0.9146	EFFP
	INCID	-3.651	-1.491	-0.788	-4.125	-4.271	-3.712	-2.960	-1.279	0.127	INCID
	DEVM	20.558	20.573	19.428	16.914	15.188	14.769	14.491	13.388	12.267	DEVM
	P 3	13.965	14.225	14.479	14.566	14.377	14.081	14.109	14.099	14.088	P 3
	P 4	13.610	13.776	14.015	14.298	14.088	13.871	13.863	13.900	13.943	P 4
	T 3	323.555	323.389	323.167	320.111	320.278	320.722	323.111	324.167	325.500	T 3
	T 4	323.555	323.389	323.167	320.111	320.278	320.722	323.111	324.167	325.500	T 4

Table B-8. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 69.85 Equivalent Rotor Speed = 6939.98 Equivalent Weight Flow = 14.234 kg/sec
Tip Radial Distortion
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	95.79	91.71	86.89	70.41	49.21	29.10	13.80	9.00	4.70	PCT SPAN
	DIA	0.425	0.432	0.439	0.464	0.495	0.526	0.549	0.556	0.562	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	12.146	11.646	11.435	11.428	11.947	13.366	15.198	16.218	17.463	BETA 2
	V 1	133.85	136.03	138.17	133.87	117.83	92.24	71.85	70.02	68.15	V 1
	V 2	132.37	135.86	137.30	133.11	119.68	101.03	86.71	85.66	84.31	V 2
	VZ 1	133.85	136.02	138.15	133.82	117.71	92.07	71.67	69.83	67.95	VZ 1
	VZ 2	129.40	133.05	134.55	130.34	116.76	97.78	83.06	81.58	79.71	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	27.85	27.42	27.21	26.35	24.70	23.23	22.56	23.73	25.08	V-THETA 2
	M 1	0.3996	0.4063	0.4129	0.3996	0.3505	0.2731	0.2121	0.2067	0.2011	M 1
	M 2	0.3950	0.4058	0.4102	0.3973	0.3561	0.2995	0.2565	0.2533	0.2493	M 2
	TURN	-12.15	-11.64	-11.43	-11.42	-11.91	-13.29	-15.08	-16.08	-17.30	TURN
	UUBAR	0.0338	0.0261	0.0315	0.0439	0.0530	0.0295	0.0123	0.0	0.0	UUBAR
	DFAC	0.095	0.083	0.086	0.086	0.071	0.011	-0.072	-0.075	-0.073	DFAC
	EFFP	-2.3067	-0.1112	-0.7412	-0.3801	0.3859	0.8752	0.9744	0.9999	0.9999	EFFP
	INCID	5.9000	5.9200	5.9700	6.2500	6.6600	7.0000	7.3200	7.4200	7.4200	INCID
	DEVM	4.855	5.656	6.248	7.383	8.327	8.315	7.618	6.968	5.977	DEVM
	P 1	10.365	10.424	10.460	10.391	10.146	9.825	9.628	9.613	9.598	P 1
	P 2	10.329	10.395	10.424	10.249	10.102	9.810	9.624	9.613	9.598	P 2
	T 1	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 1
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	UUBAR FS										UUBAR FS
	P1 FS										P1 FS
	LOSS PARA FS										LOSS PARA FS

ROTOR F	PCT SPAN	95.01	89.99	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA	0.425	0.430	0.436	0.453	0.475	0.498	0.515	0.520	0.526	DIA
ROTOR -L.E.	BETA 2	5.334	6.094	8.072	9.061	9.541	10.803	12.384	13.712	14.190	BETA 2
ROTOR -T.E.	BETA 3	54.324	51.198	48.606	42.142	41.059	43.484	45.306	47.083	49.451	BETA 3
	BETA(PR) 2	36.595	36.694	37.029	39.579	45.068	52.088	57.621	58.134	58.755	BETA(PR) 2
	BETA(PR) 3	-13.076	-9.660	-6.962	3.271	10.256	16.528	20.409	21.562	22.462	BETA(PR) 3
	V 2	172.23	174.47	175.74	170.22	152.79	128.38	109.97	108.78	107.22	V 2
	V 3	228.60	232.77	236.74	230.76	215.26	200.58	192.79	189.30	186.31	V 3
	VZ 2	169.85	172.27	173.58	168.01	150.36	125.59	106.79	105.24	103.25	VZ 2
	VZ 3	137.97	145.54	156.46	171.04	159.92	145.27	135.24	128.55	120.78	VZ 3
	V-THETA 2	27.83	27.67	27.40	26.79	25.27	23.96	23.45	24.71	26.11	V-THETA 2
	V THETA 3	185.22	180.59	177.53	154.77	143.78	137.78	136.69	138.25	141.17	V-THETA 3
	V PR) 2	211.7	214.8	217.4	217.0	213.1	204.7	199.8	199.7	199.4	V(PR) 2
	V PR) 3	137.8	148.4	167.8	171.4	162.8	152.0	145.0	138.9	131.4	V(PR) 3
	V HETA PR2	-126.2	-128.4	-130.9	-138.9	-150.7	-161.2	-168.4	-169.3	-170.2	VTHETA PR2
	V HETA PR3	30.9	24.6	19.1	-6.8	-28.9	-43.1	-50.3	-50.8	-49.9	VTHETA PR3
	U 2	154.13	155.96	158.35	165.67	175.99	185.20	191.86	194.01	196.30	U 2
	U 3	154.33	156.38	158.42	164.55	172.72	180.89	187.01	189.05	191.10	U 3
	M 2	0.4156	0.4267	0.4398	0.4132	0.4083	0.3827	0.3266	0.3230	0.3183	M 2
	M 3	0.6729	0.6876	0.7009	0.6849	0.6566	0.5892	0.5642	0.5531	0.5434	M 3

	(PR) 2	0.6386	0.6486	0.6567	0.6574	0.6383	0.6103	0.5933	0.5930	0.5920	M(PR) 2
	(PR) 3	0.4063	0.4384	0.4671	0.5088	0.4807	0.4465	0.4242	0.4059	0.3834	M(PR) 3
	TURN(PR)	48.478	46.241	43.883	36.208	34.769	35.495	37.151	36.517	36.246	TURN(PR)
	UUBAR	0.3322	0.2549	0.1739	0.0100	-0.0025	-0.0128	-0.0202	0.0154	0.0586	UUBAR
	LOSS PARA	0.1042	0.0821	0.0673	0.0038	-0.0009	-0.0047	-0.0076	0.0058	0.0223	LOSS PARA
	DFAC	0.5000	0.5429	0.5034	0.4162	0.4375	0.4688	0.4979	0.5311	0.5736	DFAC
	EFFP	0.7053	0.7669	0.8268	0.9035	1.0033	1.0161	1.0214	0.9878	0.9567	EFFP
	EFF	0.6869	0.7587	0.8342	0.9033	1.0034	1.0167	1.0222	0.9874	0.9551	EFF
	INCID	-16.055	-17.706	-16.072	-14.256	-9.443	-3.481	0.793	0.414	-0.427	INCID
	DEVM	20.919	16.553	13.045	11.249	8.038	6.974	9.012	10.547	12.727	DEVM
	P 2	10.229	10.395	10.424	10.343	10.102	9.810	9.624	9.613	9.598	P 2
	P 3	12.601	12.874	13.141	13.185	12.827	12.498	12.360	12.290	12.228	P 3
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	T 3	312.333	312.111	311.805	309.000	308.444	308.472	309.055	309.389	309.778	T 3

STATOR F	PCT SPAN	95.61	92.01	88.21	69.61	49.21	29.51	14.11	9.31	4.51	PCT SPAN
	DIA	0.423	0.427	0.432	0.448	0.468	0.487	0.502	0.506	0.511	DIA
STATOR-L.E.	BETA 3	54.374	50.774	47.886	41.188	40.904	42.468	44.274	46.038	48.365	BETA 3
STATOR-T.E.	BETA 4	10.710	9.926	9.603	7.494	7.013	7.492	9.333	9.524	9.424	BETA 4
	V 3	227.62	233.76	239.44	224.27	219.72	205.06	196.90	193.24	190.08	V 3
	V 4	174.25	182.13	194.91	201.96	193.48	182.71	176.13	175.06	173.96	V 4
	VZ 3	132.76	147.62	160.55	177.00	165.88	150.94	140.57	133.73	125.89	VZ 3
	VZ 4	171.46	179.38	192.25	199.50	191.80	180.70	173.05	171.75	170.52	VZ 4
	V-THETA 3	185.26	181.08	177.60	156.87	143.71	138.16	137.05	138.67	141.62	V-THETA 3
	V-THETA 4	30.88	31.60	31.83	28.07	23.59	23.76	28.44	28.81	28.30	V-THETA 4
	M 3	0.6717	0.6906	0.7097	0.6996	0.6499	0.6033	0.5770	0.5653	0.5551	M 3
	M 4	0.5042	0.5284	0.5681	0.5917	0.5669	0.5335	0.5127	0.5092	0.5055	M 4
	TURN(PR)	44.165	40.844	38.479	33.176	33.845	34.882	34.819	36.383	38.800	TURN(PR)
	UUBAR	0.0859	0.0987	0.0721	0.0417	0.0415	0.0697	0.1170	0.1113	0.1044	UUBAR
	LOSS PARA	0.0274	0.0314	0.0233	0.0141	0.0148	0.0261	0.0451	0.0433	0.0411	LOSS PARA
	DFAC	0.4525	0.4280	0.3868	0.3280	0.3183	0.3223	0.3248	0.3226	0.3270	DFAC
	EFFP	0.8179	0.7880	0.8223	0.8700	0.8434	0.7062	0.4820	0.4501	0.4288	EFFP
	INCID	-10.678	-8.628	-7.921	-11.134	-11.750	-12.194	-13.388	-12.843	-12.036	INCID
	DEVM	15.459	15.927	15.201	12.740	11.104	11.473	13.293	12.674	11.664	DEVM
	P 3	12.601	12.874	13.141	13.185	12.827	12.498	12.360	12.290	12.228	P 3
	P 4	12.308	12.528	12.871	13.032	12.696	12.308	12.067	12.024	11.987	P 4
	T 3	312.333	312.111	311.805	309.000	308.444	308.472	309.055	309.389	309.778	T 3
	T 4	312.333	312.111	311.805	309.000	308.444	308.472	309.055	309.389	309.778	T 4

Table B-8. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 69.90 Equivalent Rotor Speed = 6945.75 Equivalent Weight Flow = 11.958 kg/sec
Tip Radial Distortion
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	95.79	91.71	86.80	70.41	49.21	29.10	13.80	9.00	4.70	PCT SPAN
	DIA	0.425	0.432	0.439	0.464	0.495	0.526	0.549	0.556	0.562	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	12.495	11.917	11.374	11.286	11.790	13.630	15.276	16.187	17.671	BETA 2
	V 1	111.73	112.23	113.23	109.53	97.50	78.86	63.36	60.37	60.18	V 1
	V 2	108.95	111.99	114.18	110.56	99.56	84.38	73.35	72.60	72.52	V 2
	VZ 1	111.73	112.22	113.22	109.49	97.40	78.72	63.22	60.20	60.00	VZ 1
	VZ 2	107.34	108.57	111.92	108.32	97.19	81.58	70.24	69.15	68.48	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	23.79	23.12	22.51	21.61	20.29	19.78	19.18	20.07	21.82	V-THETA 2
	M 1	0.3319	0.3334	0.3365	0.3253	0.2889	0.2330	0.1869	0.1780	0.1774	M 1
	M 2	0.3265	0.3327	0.3394	0.3284	0.2951	0.2495	0.2166	0.2143	0.2141	M 2
	TURN	-12.49	-11.92	-11.37	-11.27	-11.76	-13.56	-15.16	-16.05	-17.51	TURN
	UUBAR	0.0473	0.0374	0.0092	0.0246	0.0564	0.0970	0.1211	0.0668	0.0673	UUBAR
	DFAC	0.102	0.085	0.072	0.071	0.065	0.036	-0.027	-0.057	-0.044	DFAC
	EFFP	-2.3491	-0.1350	0.6575	0.4438	0.4402	0.6042	0.7399	0.8713	0.8718	EFFP
	INCID	5.9000	5.9200	5.9700	6.2500	6.6600	7.0000	7.3200	7.4200	7.4200	INCID
	DEVM	4.505	5.384	6.308	7.526	8.483	8.052	7.540	6.998	5.770	DEVM
	P 1	10.302	10.323	10.328	10.291	10.144	9.951	9.822	9.801	9.801	P 1
	P 2	10.266	10.295	10.330	10.273	10.112	9.915	9.794	9.786	9.786	P 2
	T 1	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 1
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	UUBAR FS										UUBAR FS
	P1 FS										P1 FS
	LOSS PARA FS										LOSS PARA FS

ROTOR F	PCT SPAN	95.01	89.99	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA	0.425	0.430	0.436	0.453	0.475	0.498	0.515	0.520	0.526	DIA
ROTOR -L.E.	BETA 2	9.808	9.511	9.118	9.126	9.556	11.121	12.527	13.269	14.439	BETA 2
ROTOR -T.E.	BETA 3	58.763	56.466	54.121	47.091	46.253	48.482	52.797	55.791	59.301	BETA 3
	BETA(PR) 2	43.377	43.745	43.871	46.433	51.578	57.821	62.463	62.909	63.081	BETA(PR) 2
	BETA(PR) 3	-13.753	-10.118	-6.910	4.620	11.964	18.645	21.651	22.683	24.086	BETA(PR) 3
	V 2	140.05	140.72	142.08	138.64	125.25	106.22	92.44	91.63	91.71	V 2
	V 3	212.57	213.21	214.56	209.20	199.10	186.46	180.92	178.50	176.09	V 3
	VZ 2	138.00	138.78	141.27	136.81	123.26	103.79	89.72	88.63	88.22	VZ 2
	VZ 3	110.01	117.64	125.70	142.39	137.56	123.41	109.18	100.17	89.74	VZ 3
	V-THETA 2	23.86	23.25	22.67	21.98	20.75	20.40	19.94	20.90	22.71	V-THETA 2
	V-THETA 3	181.39	177.50	173.79	153.18	143.71	139.40	143.83	147.34	151.14	V-THETA 3
	V(PR) 2	189.9	192.1	196.0	198.6	198.5	195.1	194.3	194.9	195.1	V(PR) 2
	V(PR) 3	114.1	120.2	126.8	142.9	140.8	130.7	118.0	109.1	98.8	V(PR) 3
	VTHETA PR2	-130.4	-132.8	-135.8	-143.8	-155.4	-165.0	-172.1	-173.3	-173.7	VTHETA PR2
	VTHETA PR3	26.9	21.0	15.2	-11.5	-29.1	-41.6	-43.3	-41.9	-40.1	VTHETA PR3
	U 2	154.26	156.09	158.48	165.81	176.14	185.36	192.02	194.17	196.46	U 2
	U 3	154.46	156.51	158.55	164.69	172.86	181.04	187.17	189.21	191.26	U 3
	M 2	0.4187	0.4208	0.4281	0.4143	0.3732	0.3152	0.2737	0.2713	0.2715	M 2
	M 3	0.6728	0.6753	0.6794	0.6152	0.5837	0.5441	0.5256	0.5176	0.5097	M 3

M(PR) 2	0.5676	0.5744	0.5863	0.5934	0.5914	0.5791	0.5753	0.5769	0.5777	M(PR) 2
M(PR) 3	0.3342	0.3522	0.3719	0.4203	0.4129	0.3813	0.3428	0.3164	0.2861	M(PR) 3
TURN(PR)	57.031	53.807	50.772	41.800	39.574	39.125	40.771	40.193	38.971	TURN(PR)
UUBAR	0.3137	0.2634	0.2098	0.0400	-0.0062	-0.0006	0.0566	0.1030	0.1494	UUBAR
LOSS PARA	0.0981	0.0847	0.0691	0.0138	-0.0022	-0.0002	0.0211	0.0386	0.0561	LOSS PARA
DFAC	0.6667	0.6374	0.6090	0.5081	0.5149	0.5626	0.6445	0.6993	0.7592	DFAC
EFFP	0.7751	0.8043	0.8386	0.9691	1.0043	1.0015	0.9587	0.9271	0.8945	EFFP
EFF	0.7680	0.7979	0.8332	0.9680	1.0045	1.0016	0.9572	0.9244	0.8907	EFF
INCID	-12.273	-10.655	-10.130	-7.402	-2.932	2.260	5.650	5.205	3.915	INCID
DEVM	20.246	16.038	13.097	12.617	9.744	9.084	10.249	11.663	14.344	DEVM
P 2	10.266	10.295	10.330	10.273	10.112	9.915	9.794	9.786	9.786	P 2
P 3	12.779	12.908	13.051	13.101	12.965	12.736	12.664	12.636	12.600	P 3
T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
T 3	312.389	312.278	312.055	309.583	309.278	309.500	311.111	311.778	312.389	T 3

STATOR F	PCT SPAN	95.81	92.01	86.21	69.91	49.21	29.51	14.11	9.31	4.51	PCT SPAN
	DIA	0.423	0.427	0.432	0.448	0.468	0.487	0.502	0.506	0.511	DIA
STATOR-L.E.	BETA 3	58.844	56.045	53.390	46.134	45.147	47.376	51.555	54.657	57.839	BETA 3
STATOR-T.E.	BETA 4	15.211	14.233	12.665	10.339	9.708	10.178	11.668	11.752	11.762	BETA 4
	V 3	212.01	214.10	216.60	212.66	202.82	190.30	184.53	182.02	179.47	V 3
	V 4	137.95	143.24	152.12	157.39	151.29	142.48	142.13	141.43	140.53	V 4
	VZ 3	109.69	119.58	129.16	147.32	142.91	128.64	114.48	105.58	95.34	VZ 3
	VZ 4	133.05	136.82	148.38	154.75	148.95	139.90	138.61	137.76	136.72	VZ 4
	V-THETA 3	181.43	177.50	173.86	153.27	143.64	139.78	144.20	147.78	151.63	V-THETA 3
	V-THETA 4	36.43	35.21	33.35	28.73	25.48	25.12	28.62	28.66	28.47	V-THETA 4
	M 3	0.6210	0.6277	0.6359	0.6261	0.5953	0.5560	0.5367	0.5284	0.5201	M 3
	M 4	0.3954	0.4111	0.4377	0.4554	0.4373	0.4108	0.4086	0.4061	0.4030	M 4
	TURN(PP)	43.633	41.811	40.721	35.782	35.395	37.114	39.778	42.594	45.969	TURN(PR)
	UUBAR	0.0636	0.0666	0.0529	0.0377	0.0596	0.0712	0.0667	0.0654	0.0641	UUBAR
	LOSS PARA	0.0196	0.0209	0.0169	0.0127	0.0211	0.0264	0.0255	0.0253	0.0250	LOSS PARA
	DFAC	0.5685	0.5471	0.5118	0.4624	0.4661	0.4817	0.4787	0.4859	0.4956	DFAC
	EFFP	0.9037	0.8951	0.9097	0.9280	0.8820	0.8553	0.8527	0.8512	0.8502	EFFP
	INCID	-6.156	-3.358	-2.416	-6.185	-7.509	-7.283	-6.103	-4.415	-2.544	INCID
	DEVM	20.561	20.231	18.463	15.083	13.797	14.153	15.619	14.891	13.987	DEVM
	P 3	12.779	12.908	13.051	13.101	12.965	12.736	12.664	12.636	12.600	P 3
	P 4	12.593	12.707	12.886	12.986	12.800	12.564	12.514	12.492	12.464	P 4
	T 3	312.389	312.278	312.055	309.583	309.278	309.500	311.111	311.778	312.389	T 3
	T 4	312.389	312.278	312.055	309.583	309.278	309.500	311.111	311.778	312.389	T 4

ORIGINAL PAGE IS
OF POOR QUALITY

Table B-8. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 69.85 Equivalent Rotor Speed = 6940.37 Equivalent Weight Flow = 10.820 kg/sec
T/p Radial Distortion
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	95.79	91.71	86.89	70.41	49.21	29.10	13.80	9.00	4.70	PCT SPAN
	DIA	0.425	0.432	0.439	0.464	0.495	0.526	0.549	0.556	0.562	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	12.079	11.560	11.082	10.889	11.559	12.938	14.940	15.989	16.832	BETA 2
	V 1	97.83	99.94	101.08	98.11	88.87	73.16	57.74	55.65	54.56	V 1
	V 2	97.50	100.70	102.16	99.38	90.42	76.82	66.75	65.11	64.21	V 2
	VZ 1	97.82	99.94	101.07	98.07	88.78	73.02	57.60	55.50	54.40	VZ 1
	VZ 2	95.34	98.65	100.23	97.50	88.33	74.48	64.01	62.08	60.91	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	20.40	20.18	19.63	18.76	18.07	17.11	17.06	17.79	18.43	V-THETA 2
	M 1	0.2899	0.2963	0.2997	0.2907	0.2630	0.2160	0.1702	0.1640	0.1607	M 1
	M 2	0.2889	0.2986	0.3029	0.2946	0.2676	0.2269	0.1969	0.1920	0.1894	M 2
	TURN	-12.08	-11.56	-11.08	-10.88	-11.53	-12.87	-14.83	-15.86	-16.68	TURN
	UUBAR	0.0368	0.0234	0.0114	0.0122	0.0373	0.0667	0.0	0.0	0.0	UUBAR
	DFAC	0.087	0.074	0.068	0.065	0.067	0.049	-0.029	-0.030	-0.026	DFAC
	EFFP	-0.2328	0.4024	0.6597	0.6893	0.4923	0.6107	0.9999	0.9998	1.0000	EFFP
	INCID	5.9000	5.9200	5.9700	6.2500	6.6600	7.0000	7.3200	7.4200	7.4200	INCID
	DEVM	4.921	5.741	6.600	7.922	8.714	8.741	7.874	7.195	6.603	DEVM
	P 1	10.244	10.279	10.294	10.258	10.155	10.002	9.881	9.867	9.860	P 1
	P 2	10.222	10.265	10.287	10.251	10.137	9.981	9.881	9.867	9.860	P 2
	T 1	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 1
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	UUBAR FS										UUBAR FS
	P1 FS										P1 FS
	LOSS PARA FS										LOSS PARA FS
ROTOR F	PCT SPAN	95.01	89.99	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA	0.425	0.430	0.436	0.453	0.475	0.498	0.515	0.520	0.526	DIA
ROTOR -L.E.	BETA 2	9.565	9.296	8.955	8.870	9.420	10.596	12.286	13.146	13.804	BETA 2
ROTOR -T.E.	BETA 3	62.253	58.959	56.256	49.418	49.773	51.275	56.294	59.081	61.947	BETA 3
	BETA(PR) 2	47.745	47.583	47.647	50.187	54.731	60.622	64.916	65.685	66.212	BETA(PR) 2
	BETA(PR) 3	-15.332	-10.936	-7.251	5.598	12.264	19.195	21.310	22.258	23.759	BETA(PR) 3
	V 2	123.15	125.61	127.01	123.75	113.16	96.37	83.90	81.94	80.95	V 2
	V 3	204.12	206.66	208.29	199.95	191.23	181.52	176.68	177.27	175.67	V 3
	VZ 2	121.44	123.96	125.45	122.21	111.40	94.33	81.51	79.30	78.08	VZ 2
	VZ 3	94.87	106.51	115.66	130.03	123.41	113.40	99.00	90.94	82.49	VZ 3
	V-THETA 2	20.46	20.49	19.77	19.07	18.48	17.65	17.75	18.52	19.18	V-THETA 2
	V-THETA 3	180.35	176.97	173.15	151.81	145.90	141.42	148.41	151.84	154.80	V-THETA 3
	V(PR) 2	180.6	183.8	186.9	190.9	193.1	192.5	192.5	192.8	193.8	V(PR) 2
	V(PR) 3	99.1	109.1	116.7	130.7	126.5	120.5	106.7	98.8	90.6	V(PR) 3
	VTHETA PR2	-133.7	-135.7	-138.6	-146.6	-157.5	-167.6	-174.1	-175.5	-177.1	VTHETA PR2
	VTHETA PR3	26.0	20.6	14.7	-12.7	-26.8	-39.5	-38.6	-37.2	-36.3	VTHETA PR3
	U 2	154.14	155.96	156.35	165.68	176.00	185.21	191.87	194.02	196.31	U 2
	U 3	154.34	156.39	156.43	164.56	172.73	180.90	187.02	189.06	191.11	U 3
	M 2	0.3067	0.3743	0.3785	0.3689	0.3363	0.2855	0.2481	0.2422	0.2392	M 2
	M 3	0.5956	0.6046	0.6093	0.5958	0.5583	0.5261	0.5177	0.5128	0.5073	M 3
	M(PR) 2	0.5378	0.5476	0.5572	0.5686	0.5737	0.5703	0.5690	0.5699	0.5728	M(PR) 2
	M(PR) 3	0.2892	0.3188	0.3414	0.3830	0.3693	0.3505	0.3093	0.2857	0.2618	M(PR) 3
	TURN(PR)	62.967	58.458	55.089	44.578	42.429	41.383	43.573	43.402	42.442	TURN(PR)
	UUBAR	0.3786	0.3046	0.2392	0.0965	0.0789	0.0726	0.1301	0.1643	0.2019	UUBAR
	LOSS PARA	0.1176	0.0978	0.0787	0.0333	0.0263	0.0265	0.0487	0.0618	0.0760	LOSS PARA
	DFAC	0.7368	0.6855	0.6478	0.5551	0.5840	0.6192	0.7136	0.7641	0.8152	DFAC
	EFFP	0.7541	0.7943	0.8319	0.9256	0.9320	0.9456	0.9097	0.8913	0.8658	EFFP
	EFF	0.7464	0.7876	0.8262	0.9231	0.9297	0.9437	0.9064	0.8872	0.8608	EFF
	INCID	-7.905	-8.617	-8.154	-3.648	0.223	5.066	8.112	7.992	7.060	INCID
	DEVM	18.678	15.225	12.756	13.594	10.044	9.633	9.909	11.240	14.018	DEVM
	P 2	10.222	10.265	10.287	10.251	10.137	9.981	9.881	9.867	9.860	P 2
	P 3	12.691	12.876	13.018	12.968	12.883	12.755	12.769	12.769	12.755	P 3
	T 2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	T 2
	T 3	312.778	312.639	312.444	309.861	310.139	310.333	312.333	313.000	313.722	T 3
STATOR F	PCT SPAN	95.81	92.01	86.21	69.91	49.21	29.51	14.11	9.31	4.51	PCT SPAN
	DIA	0.423	0.427	0.432	0.448	0.468	0.487	0.502	0.506	0.511	DIA
STATOR-L.E.	BETA 3	62.376	58.530	55.501	48.440	48.580	50.090	54.904	57.584	60.332	BETA 3
STATOR-T.E.	BETA 4	17.856	16.794	15.103	11.985	11.016	11.653	12.210	12.479	12.842	BETA 4
	V 3	203.60	207.55	210.20	203.07	194.64	185.16	182.20	180.74	179.04	V 3
	V 4	117.75	125.40	130.27	137.50	133.90	129.16	131.43	132.35	133.43	V 4
	VZ 3	94.41	108.37	119.04	134.68	128.66	118.61	104.56	96.71	88.46	VZ 3
	VZ 4	112.07	120.04	131.53	134.44	131.28	126.19	127.91	128.57	129.29	VZ 4
	V-THETA 3	180.39	177.05	173.22	151.91	145.83	141.81	148.79	152.30	155.30	V-THETA 3
	V-THETA 4	36.10	36.24	35.50	28.54	25.56	26.03	27.68	28.45	29.47	V-THETA 4
	M 3	0.5942	0.6068	0.6152	0.5955	0.5689	0.5394	0.5285	0.5234	0.5176	M 3
	M 4	0.3358	0.3583	0.3904	0.3957	0.3849	0.3707	0.3762	0.3785	0.3812	M 4
	TURN(PR)	44.520	41.730	40.395	36.442	37.522	38.357	42.593	45.005	47.396	TURN(PR)
	UUBAR	0.0818	0.0941	0.0703	0.0527	0.0672	0.0745	0.0772	0.0736	0.0635	UUBAR
	LOSS PARA	0.0249	0.0291	0.0223	0.0176	0.0237	0.0275	0.0295	0.0284	0.0247	LOSS PARA
	DFAC	0.6488	0.6164	0.5679	0.5321	0.5369	0.5416	0.5427	0.5429	0.5401	DFAC
	EFFP	0.8910	0.8692	0.8937	0.9143	0.8863	0.8692	0.8546	0.8564	0.8707	EFFP
	INCID	-2.625	-0.873	-0.306	-3.879	-4.075	-4.568	-2.749	-1.280	-0.042	INCID
	DEVM	23.105	22.798	20.900	16.729	15.103	15.625	16.158	15.614	15.081	DEVM
	P 3	12.691	12.876	13.018	12.968	12.883	12.755	12.769	12.769	12.755	P 3
	P 4	12.470	12.609	12.812	12.823	12.712	12.584	12.598	12.609	12.620	P 4
	T 3	312.778	312.639	312.444	309.861	310.139	310.333	312.333	313.000	313.722	T 3
	T 4	312.778	312.639	312.444	309.861	310.139	310.333	312.333	313.000	313.722	T 4

Table B-9. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 99.63 Equivalent Rotor Speed = 9899.00 Equivalent Weight Flow = 39.479 lb/sec
Tip Radial Distortion
U.S. Customary Units

INLET GUIDE VANE	PCT SPAN	95.79	91.71	86.69	70.41	49.21	29.10	13.80	9.00	4.70	PCT SPAN
	DIA	16.749	16.091	17.276	18.252	19.507	20.697	21.603	21.887	22.142	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	12.616	12.063	11.671	11.462	12.257	13.864	15.626	16.506	17.430	BETA 2
	V 1	589.80	588.29	592.48	568.69	502.01	397.16	313.80	299.11	293.49	V 1
	V 2	563.18	573.47	587.03	569.43	515.39	442.31	388.11	380.20	375.24	V 2
	VZ 1	588.79	588.27	592.44	568.47	501.50	396.43	313.01	298.30	292.63	VZ 1
	VZ 2	548.56	560.75	568.88	557.53	502.23	427.24	371.00	361.57	354.84	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	123.01	119.84	117.71	113.05	109.11	105.44	103.76	107.14	111.41	V-THETA 2
	M 1	0.5437	0.5422	0.5463	0.5231	0.4590	0.3603	0.2833	0.2699	0.2647	M 1
	M 2	0.5178	0.5278	0.5361	0.5238	0.4716	0.4026	0.3519	0.3446	0.3400	M 2
	TURN	-12.62	-12.06	-11.67	-11.45	-12.22	-13.79	-15.51	-16.37	-17.27	TURN
	UUBAR	0.0872	0.0674	0.0429	0.0214	0.0478	0.0464	0.0456	0.0336	0.0523	UUBAR
	DFAC	0.129	0.107	0.088	0.080	0.064	-0.002	-0.095	-0.114	-0.109	DFAC
	EFFP	8.2421	-4.6295	-11.7742	0.1215	0.5526	0.8459	0.9235	0.9500	0.9261	EFFP
	INCID	5.9000	5.9200	5.9700	6.2500	6.6690	7.0000	7.3200	7.4200	7.4200	INCID
	DEVM	4.384	5.238	6.012	7.349	8.018	7.820	7.193	6.682	6.009	DEVM
	P 1	15.405	15.460	15.505	15.283	14.699	13.949	13.493	13.426	13.404	P 1
	P 2	15.160	15.271	15.383	15.227	14.605	13.893	13.460	13.404	13.371	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	UUBAR FS										UUBAR FS
	P1 FS										P1 FS
	LOSS PARA FS										LOSS PARA FS
ROTOR F	PCT SPAN	95.01	89.99	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA	16.721	16.943	17.164	17.828	18.713	19.598	20.262	20.483	20.705	DIA
ROTOR -L.E.	BETA 2	8.915	8.693	8.407	8.407	9.297	10.855	12.444	13.160	13.871	BETA 2
ROTOR -T.E.	BETA 3	62.768	58.427	55.715	47.930	47.334	47.858	50.850	52.138	53.253	BETA 3
	BETA(PR) 2	37.242	37.707	37.814	40.332	46.239	53.193	58.259	59.072	59.664	BETA(PR) 2
	BETA(PR) 3	-15.488	-8.379	-5.754	5.247	12.307	19.364	22.191	23.256	24.460	BETA(PR) 3
	V 2	796.13	797.53	810.82	786.64	692.36	579.90	503.37	493.09	487.09	V 2
	V 3	946.87	957.50	963.77	956.19	915.91	867.53	848.96	841.85	835.13	V 3
	VZ 2	786.51	788.16	802.07	777.78	681.84	567.16	488.71	477.14	469.70	VZ 2
	VZ 3	432.51	500.56	542.72	641.79	620.74	581.16	534.88	515.55	498.44	VZ 3
	V-THETA 2	123.37	120.50	118.54	114.95	111.62	108.76	107.64	111.56	115.98	V-THETA 2
	V-THETA 3	842.35	814.49	796.04	711.10	672.95	642.24	656.99	663.15	667.57	V-THETA 3
	V(PR) 2	988.0	996.2	1015.3	1020.6	986.8	948.1	930.5	930.0	931.7	V(PR) 2
	V(PR) 3	453.0	510.1	546.0	644.9	635.9	617.9	580.3	564.0	550.6	V(PR) 3
	VTHETA PR2	-597.6	-609.3	-622.5	-660.4	-712.0	-757.9	-790.0	-796.3	-802.6	VTHETA PR2
	VTHETA PR3	120.1	82.7	54.7	-58.9	-135.3	-204.2	-218.2	-221.6	-226.7	VTHETA PR3
	U 2	721.27	729.82	741.01	775.31	823.60	866.70	897.84	907.91	918.62	U 2
	U 3	722.22	731.81	741.36	770.04	808.26	846.49	875.17	884.71	894.30	U 3
	M 2	0.7524	0.7536	0.7679	0.7424	0.6455	0.5340	0.4603	0.4505	0.4448	M 2
	M 3	0.8411	0.8507	0.8582	0.8585	0.8159	0.7675	0.7464	0.7387	0.7315	M 3
	M(PR) 2	0.9337	0.9416	0.9615	0.9632	0.9200	0.8731	0.8509	0.8497	0.8509	M(PR) 2
	M(PR) 3	0.4016	0.4532	0.4862	0.5778	0.5665	0.5467	0.5102	0.4949	0.4823	M(PR) 3
	TURN(PR)	52.619	47.034	43.561	35.073	33.891	33.773	36.017	35.770	35.169	TURN(PR)
	UUBAR	0.5049	0.4303	0.3648	0.1743	0.1229	0.0796	0.0857	0.0998	0.1086	UUBAR
	LOSS PARA	0.1567	0.1387	0.1204	0.0502	0.0440	0.0291	0.0319	0.0373	0.0406	LOSS PARA
	DFAC	0.7761	0.7159	0.6835	0.5696	0.5616	0.5623	0.6092	0.6303	0.6478	DFAC
	EFFP	0.5511	0.6066	0.6609	0.8320	0.8832	0.9225	0.9327	0.9239	0.9157	EFFP
	EFF	0.5321	0.5885	0.6441	0.8222	0.8761	0.9176	0.9282	0.9188	0.9100	EFF
	INCID	-18.408	-16.693	-16.187	-13.503	-8.273	-2.376	1.433	1.354	0.485	INCID
	DEVM	18.522	16.773	14.752	13.244	10.086	9.801	10.786	12.234	14.716	DEVM
	P 2	15.160	15.271	15.383	15.227	14.605	13.893	13.460	13.404	13.371	P 2
	P 3	20.367	21.062	21.718	22.685	22.229	21.551	21.451	21.396	21.368	P 3
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	T 3	604.500	603.500	602.100	594.800	594.200	594.250	598.300	599.400	600.400	T 3
STATOR F	PCT SPAN	95.81	92.01	86.21	69.91	49.21	29.51	14.11	9.31	4.51	PCT SPAN
	DIA	16.659	16.803	17.023	17.641	18.426	19.173	19.757	19.939	20.121	DIA
STATOR-L.E.	BETA 3	63.228	57.569	53.838	45.246	44.938	45.793	48.774	50.060	51.196	BETA 3
STATOR-T.E.	BETA 4	3.348	4.120	5.476	7.194	6.320	6.822	8.863	9.258	9.530	BETA 4
	V 3	943.72	965.47	986.48	1002.13	953.18	900.10	877.98	869.78	861.77	V 3
	V 4	793.29	820.59	869.80	919.25	918.10	905.71	896.26	890.38	880.94	V 4
	VZ 3	425.09	517.75	582.05	705.21	674.08	626.43	577.19	556.92	538.53	VZ 3
	VZ 4	791.90	818.37	865.65	911.53	911.41	897.09	881.76	874.23	863.28	VZ 4
	V-THETA 3	842.55	814.87	796.37	711.54	672.63	644.02	658.71	665.13	669.71	V-THETA 3
	V-THETA 4	46.33	58.95	82.99	115.05	100.93	107.31	137.49	142.50	144.93	V-THETA 4
	M 3	0.8359	0.8568	0.8815	0.9041	0.8539	0.8000	0.7749	0.7661	0.7575	M 3
	M 4	0.6887	0.7154	0.7642	0.8188	0.8181	0.8056	0.7931	0.7864	0.7763	M 4
	TURN(PR)	59.879	53.447	48.356	38.047	38.571	38.879	39.788	40.672	41.529	TURN(PR)
	UUBAR	0.0958	0.1105	0.0825	0.0893	0.0858	0.0735	0.1170	0.1275	0.1423	UUBAR
	LOSS PARA	0.0306	0.0356	0.0270	0.0303	0.0307	0.0275	0.0452	0.0497	0.0559	LOSS PARA
	DFAC	0.4296	0.4042	0.3567	0.2876	0.2549	0.2217	0.2152	0.2179	0.2253	DFAC
	EFFP	0.7452	0.6929	0.7202	0.5821	0.0994	5.5703	3.2053	3.1220	3.5415	EFFP
	INCID	-1.773	-1.833	-1.969	-7.063	-7.717	-8.866	-8.887	-8.819	-9.201	INCID
	DEVM	8.598	10.119	11.275	11.940	10.412	10.805	12.825	12.409	11.769	DEVM
	P 3	20.367	21.062	21.718	22.685	22.229	21.551	21.451	21.396	21.368	P 3
	P 4	19.651	20.173	21.007	21.851	21.507	21.007	20.629	20.517	20.406	P 4
	T 3	604.500	603.500	602.100	594.800	594.200	594.250	598.300	599.400	600.400	T 3
	T 4	604.500	603.500	602.100	594.800	594.200	594.250	598.300	599.400	600.490	T 4

ORIGINAL PAGE IS
OF POOR QUALITY

Table B-9. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 99.99 Equivalent Rotor Speed = 9934.52 Equivalent Weight Flow = 36.173 lb/sec
Tip Radial Distortion
U.S. Customary Units

INLET GUIDE VANE	PCT SPAN	95.79	91.71	86.89	70.41	49.21	29.10	13.80	9.00	4.70	PCT SPAN
	DIA	16.749	16.991	17.276	18.252	19.507	20.497	21.603	21.887	22.142	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	12.779	11.872	11.509	11.382	11.995	13.484	14.817	15.568	16.567	BETA 2
	V 1	538.97	535.91	536.35	516.11	460.47	361.22	283.07	272.42	266.55	V 1
	V 2	512.83	525.67	531.55	520.28	469.70	399.42	346.01	340.66	337.78	V 2
	VZ 1	538.96	535.69	536.30	515.92	460.00	360.56	282.36	271.68	265.76	VZ 1
	VZ 2	500.12	514.38	520.76	509.54	458.16	386.39	332.01	325.47	320.86	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	113.43	108.13	106.03	102.57	97.34	92.65	87.83	90.68	95.45	V-THETA 2
	M 1	0.4944	0.4915	0.4919	0.4725	0.4196	0.3270	0.2552	0.2455	0.2401	M 1
	M 2	0.4693	0.4816	0.4873	0.4765	0.4284	0.3624	0.3129	0.3080	0.3054	M 2
	TURN	-12.76	-11.67	-11.51	-11.37	-11.96	-13.41	-14.70	-15.44	-16.41	TURN
	UUBAR	0.1011	0.0579	0.0324	0.0126	0.0579	0.0538	0.0714	0.0579	0.0504	UUBAR
	DFAC	0.133	0.101	0.089	0.073	0.068	0.003	-0.089	-0.105	-0.108	DFAC
	EFFP	33.2845	-2.5997	-1.5577	0.5662	0.4296	0.8127	0.8771	0.9092	0.9250	EFFP
	INCID	5.9000	5.9200	5.9700	6.2500	6.6600	7.0000	7.3200	7.4200	7.4200	INCID
	DEVM	4.221	5.430	6.174	7.429	8.279	8.197	7.996	7.613	6.866	DEVM
	P 1	15.302	15.349	15.334	15.167	14.729	14.080	13.690	13.647	13.626	P 1
	P 2	15.004	15.194	15.258	15.139	14.631	14.026	13.647	13.615	13.598	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	516.700	518.700	516.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	UUBAR FS										UUBAR FS
	PI FS										PI FS
	LOSS PARA FS										LOSS PARA FS

ROTOR F	PCT SPAN	95.01	89.99	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA	16.721	16.943	17.164	17.828	18.713	19.598	20.262	20.483	20.705	DIA
ROTOR -L.E.	BETA 2	9.446	8.921	8.682	8.691	9.327	10.717	11.934	12.543	13.314	BETA 2
ROTOR -T.E.	BETA 3	59.905	58.622	57.145	49.083	48.363	50.749	54.369	57.092	59.669	BETA 3
	BETA(PR) 2	41.736	41.999	42.330	44.639	50.169	56.889	61.928	62.543	62.955	BETA(PR) 2
	BETA(PR) 3	-15.556	-12.039	-8.621	4.462	12.010	18.551	21.581	22.210	23.134	BETA(PR) 3
	V 2	693.24	701.21	707.35	690.61	615.75	519.05	443.99	437.52	434.47	V 2
	V 3	1000.63	990.39	982.13	958.18	913.43	862.18	843.42	838.02	833.32	V 3
	VZ 2	663.63	692.72	699.21	682.33	606.35	504.95	431.87	424.39	419.93	VZ 2
	VZ 3	500.84	514.88	532.66	627.39	606.42	544.75	490.47	454.49	420.11	VZ 3
	V-THETA 2	113.77	106.73	106.77	104.30	99.58	95.56	91.28	94.42	99.37	V-THETA 2
	V-THETA 3	664.27	644.25	624.77	723.84	682.15	666.71	684.30	702.32	718.03	V-THETA 3
	V(PR) 2	910.4	932.1	945.8	959.2	947.5	925.5	919.0	921.7	924.9	V(PR) 2
	V(PR) 3	523.6	529.3	539.3	629.7	621.0	576.4	529.8	493.4	459.4	V(PR) 3
	VTHETA PR2	-610.1	-623.7	-636.9	-673.8	-727.0	-774.2	-809.8	-816.7	-822.5	VTHETA PR2
	VTHETA PR3	139.5	109.8	80.8	-49.0	-129.0	-182.8	-194.0	-185.6	-179.5	VTHETA PR3
	U 2	723.86	732.44	743.67	778.09	826.55	869.81	901.07	911.17	921.92	U 2
	U 3	724.81	734.44	744.02	772.80	811.16	849.53	878.31	887.89	897.51	U 3
	M 2	0.6463	0.6544	0.6606	0.6437	0.5691	0.4724	0.4041	0.3980	0.3952	M 2
	M 3	0.8903	0.8799	0.8722	0.8557	0.8110	0.7589	0.7367	0.7295	0.7230	M 3
	M(PR) 2	0.6544	0.6699	0.6834	0.8940	0.8757	0.8473	0.8365	0.8386	0.8413	M(PR) 2
	M(PR) 3	0.4658	0.4703	0.4789	0.5624	0.5514	0.5074	0.4628	0.4295	0.3988	M(PR) 3
	TURN(PR)	57.184	53.972	50.941	40.165	38.119	38.285	40.304	40.296	39.792	TURN(PR)
	UUBAR	0.3466	0.3115	0.2668	0.0694	0.0275	0.0383	0.0722	0.1146	0.1495	UUBAR

	LOSS PARA	0.1070	0.0995	0.0875	0.0240	0.0099	0.0140	0.0270	0.0431	0.0565	LOSS PARA
	DFAC	0.6920	0.6904	0.6816	0.5664	0.5673	0.6122	0.6783	0.7282	0.7735	DFAC
	EFFP	0.7499	0.7680	0.7965	0.9434	0.9752	0.9725	0.9529	0.9266	0.8991	EFFP
	EFF	0.7340	0.7536	0.7817	0.9401	0.9734	0.9706	0.9493	0.9211	0.8915	EFF
	INCID	-13.912	-12.401	-11.671	-9.196	-4.341	1.325	5.114	4.838	3.788	INCID
	DEVM	18.454	14.127	11.388	12.459	9.740	8.991	10.179	11.191	13.396	DEVM
	P 2	15.004	15.194	15.258	15.139	14.631	14.026	13.647	13.615	13.598	P 2
	P 3	22.980	23.369	23.726	24.250	23.682	22.893	22.763	22.742	22.720	P 3
	T 2	516.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	T 3	604.250	606.800	607.900	598.200	597.300	599.000	604.700	607.600	610.600	T 3

STATOR F	PCT SPAN	95.81	92.01	86.21	69.91	49.21	29.51	14.11	9.31	4.51	PCT SPAN
	DIA	16.659	16.803	17.025	17.641	18.426	19.173	19.757	19.939	20.121	DIA
STATOR-L.E.	BETA 3	60.493	57.583	54.956	46.371	45.454	48.558	52.114	54.706	57.161	BETA 3
STATOR-T.E.	BETA 4	11.894	11.936	11.913	11.795	10.357	9.688	9.649	9.639	9.648	BETA 4
	V 3	995.31	1000.59	1008.15	1000.97	949.46	893.35	871.19	864.89	859.11	V 3
	V 4	570.48	596.22	629.78	670.13	641.63	605.60	602.80	609.04	615.89	V 4
	VZ 3	489.43	526.38	579.13	690.44	659.48	590.28	533.85	498.65	464.91	VZ 3
	VZ 4	504.66	563.26	610.09	655.64	630.43	595.52	591.73	597.33	603.33	VZ 4
	V-THETA 3	664.47	644.65	625.11	724.29	681.82	646.55	686.09	704.42	720.32	V-THETA 3
	V-THETA 4	116.81	123.29	129.98	136.91	115.22	101.66	100.60	101.45	102.56	V-THETA 4
	M 3	0.6826	0.6904	0.6990	0.6999	0.6475	0.5981	0.7847	0.7637	0.7478	M 3
	M 4	0.4870	0.5054	0.5358	0.5772	0.5516	0.5161	0.5131	0.5173	0.5221	M 4
	TURN(PR)	48.600	45.646	43.018	34.563	35.555	38.785	42.348	44.945	47.390	TURN(PR)
	UUBAR	0.0722	0.0816	0.0704	0.0616	0.0719	0.0686	0.0779	0.0679	0.0553	UUBAR
	LOSS PARA	0.0226	0.0256	0.0226	0.0266	0.0254	0.0255	0.0300	0.0264	0.0217	LOSS PARA
	DFAC	0.6601	0.6883	0.6027	0.5376	0.5413	0.5646	0.5747	0.5755	0.5746	DFAC
	EFFP	0.9194	0.9020	0.9114	0.9146	0.8962	0.8974	0.8777	0.8896	0.9067	EFFP
	INCID	-4.507	-1.620	-0.671	-5.948	-6.701	-6.101	-5.544	-4.166	-3.223	INCID
	DEVM	17.143	17.436	17.711	16.539	14.445	13.664	13.607	12.789	11.886	DEVM
	P 3	22.980	23.369	23.726	24.250	23.682	22.893	22.763	22.742	22.720	P 3
	P 4	22.526	22.661	23.044	23.639	23.044	22.363	22.196	22.255	22.331	P 4
	T 3	604.250	606.800	607.900	598.200	597.300	599.000	604.700	607.600	610.600	T 3
	T 4	604.250	606.800	607.900	598.200	597.300	599.000	604.700	607.600	610.600	T 4

Table B-9. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 100.39 Equivalent Rotor Speed = 9975.03 Equivalent Weight Flow = 34.208 lb/sec
Tip Radial Distortion
U.S. Customary Units

INLET GUIDE VANE	PCT SPAN	95.79	91.71	86.89	70.41	49.21	29.10	13.80	9.00	4.70	PCT SPAN
	DIA	16.749	16.991	17.276	18.252	19.507	20.697	21.603	21.867	22.142	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	11.920	11.389	11.267	11.284	11.801	13.393	15.280	16.625	18.258	BETA 2
	V 1	498.41	502.54	508.57	488.68	433.66	345.53	264.34	258.35	257.51	V 1
	V 2	476.69	469.32	495.75	483.61	435.00	362.43	320.56	314.80	314.52	V 2
	VZ 1	498.40	502.52	508.53	488.50	433.43	344.90	263.68	257.65	256.75	VZ 1
	VZ 2	466.40	479.64	486.09	473.79	422.65	350.73	306.93	299.19	296.06	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	98.46	90.62	96.84	94.53	88.30	83.51	83.85	89.34	97.67	V-THETA 2
	M 1	0.4556	0.4595	0.4653	0.4463	0.3946	0.3125	0.2381	0.2327	0.2319	M 1
	M 2	0.4350	0.4469	0.4531	0.4415	0.3936	0.3281	0.2895	0.2842	0.2840	M 2
	TURN	-11.92	-11.39	-11.26	-11.27	-11.77	-13.32	-15.16	-16.49	-18.09	TURN
	UUBAR	0.0744	0.0600	0.0534	0.0388	0.0857	0.1385	0.0201	0.0421	0.0423	UUBAR
	DFAC	0.123	0.104	0.102	0.089	0.086	0.053	-0.077	-0.067	-0.053	DFAC
	EFFP	7.2563	-17.1518	50.2727	-1.3812	-0.0533	0.4294	0.9600	0.9221	0.9225	EFFP
	INCID	5.9000	5.9200	5.9700	6.2500	6.6600	7.0000	7.3200	7.4200	7.4200	INCID
	DEVM	5.080	5.912	6.416	7.528	8.473	8.269	7.536	6.564	5.188	DEVM
	P 1	15.150	15.230	15.284	15.129	14.722	14.176	13.790	13.769	13.769	P 1
	P 2	14.990	15.107	15.172	15.054	14.593	14.047	13.780	13.748	13.748	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	UUBAR FS										UUBAR FS
	P1 FS										P1 FS
	LOSS PARA FS										LOSS PARA FS
ROTOR F	PCT SPAN	95.01	89.99	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA	16.721	16.943	17.164	17.828	18.713	19.598	20.262	20.483	20.705	DIA
ROTOR -L.E.	BETA 2	8.999	8.735	8.675	8.763	9.310	10.751	12.371	13.461	14.731	BETA 2
ROTOR -T.E.	BETA 3	59.523	58.696	57.565	50.190	44.972	50.343	55.728	58.874	61.816	BETA 3
	BETA(PR) 2	45.205	45.269	45.447	47.761	53.309	60.047	64.081	64.692	64.857	BETA(PR) 2
	BETA(PR) 3	-12.830	-9.988	-7.122	5.222	12.540	18.858	21.883	21.586	21.321	BETA(PR) 3
	V 2	631.36	639.73	646.55	629.81	559.61	463.67	409.14	402.12	402.58	V 2
	V 3	977.04	968.08	961.77	938.89	896.86	864.71	839.26	841.95	846.82	V 3
	VZ 2	623.59	632.31	639.13	622.10	551.08	453.64	397.33	388.63	386.74	VZ 2
	VZ 3	494.58	502.22	515.69	600.45	576.41	551.06	471.82	434.52	399.36	VZ 3
	V-THETA 2	98.75	97.16	97.51	96.12	90.34	86.13	87.15	93.02	101.68	V-THETA 2
	V-THETA 3	840.41	825.88	811.48	721.03	686.26	664.78	692.39	719.59	745.30	V-THETA 3
	V(PR) 2	885.1	898.4	911.0	925.7	923.0	909.6	910.1	910.2	911.4	V(PR) 2
	V(PR) 3	510.4	512.8	520.2	603.9	591.5	584.1	510.7	469.7	431.2	V(PR) 3
	VTHETA PR2	-628.1	-636.3	-649.2	-685.1	-739.6	-787.2	-817.6	-821.9	-824.0	VTHETA PR2
	VTHETA PR3	112.6	88.4	64.4	-54.9	-128.2	-188.2	-189.5	-171.9	-155.9	VTHETA PR3
	U 2	726.81	735.43	746.70	781.26	829.92	873.36	904.74	914.88	925.68	U 2
	U 3	727.77	737.43	747.05	775.95	814.47	852.99	881.89	891.51	901.17	U 3
	M 2	0.5845	0.5928	0.5996	0.5830	0.5143	0.4227	0.3715	0.3649	0.3654	M 2
	M 3	0.8664	0.8575	0.8515	0.8354	0.7927	0.7605	0.7312	0.7314	0.7336	M 3
	M(PR) 2	0.8194	0.8325	0.8448	0.8568	0.8483	0.8291	0.8263	0.8261	0.8272	M(PR) 2
	M(PR) 3	0.4530	0.4542	0.4606	0.5373	0.5228	0.5138	0.4450	0.4080	0.3735	M(PR) 3
	TURN(PR)	57.942	55.202	52.561	42.527	40.731	41.144	42.165	43.075	43.507	TURN(PR)
	UUBAR	0.3584	0.3303	0.2894	0.1028	0.0684	0.0142	0.1011	0.1386	0.1657	UUBAR
	LOSS PARA	0.1126	0.1063	0.0952	0.0355	0.0245	0.0052	0.0377	0.0524	0.0635	LOSS PARA
	DFAC	0.6929	0.6947	0.6889	0.5806	0.5932	0.6001	0.7015	0.7590	0.8122	DFAC
	EFFP	0.7544	0.7677	0.7896	0.9245	0.9438	0.9941	0.9355	0.9168	0.8996	EFFP
	EFF	0.7394	0.7533	0.7762	0.9193	0.9399	0.9937	0.9306	0.9105	0.8918	EFF
	INCID	-10.445	-9.131	-8.554	-6.074	-1.200	4.490	7.274	6.995	5.699	INCID
	DEVM	21.163	16.167	12.886	13.219	10.319	9.296	10.479	10.570	11.592	DEVM
	P 2	14.990	15.107	15.172	15.054	14.593	14.047	13.780	13.748	13.748	P 2
	P 3	22.870	22.191	23.523	23.983	23.555	23.341	23.030	23.191	23.405	P 3
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	T 3	608.700	608.400	607.900	599.000	599.600	600.200	606.800	610.500	614.200	T 3
STATOR F	PCT SPAN	95.81	92.01	86.21	69.91	49.21	29.51	14.11	9.31	4.51	PCT SPAN
	DIA	16.659	16.803	17.023	17.641	18.426	19.173	19.757	19.939	20.121	DIA
STATOR-L.E.	BETA 3	59.982	57.797	55.655	47.770	47.676	48.167	53.411	56.310	58.987	BETA 3
STATOR-T.E.	BETA 4	10.566	10.696	10.831	11.032	10.174	8.687	8.364	8.225	8.049	BETA 4
	V 3	970.83	976.51	983.31	974.66	928.56	896.20	866.34	869.12	874.04	V 3
	V 4	522.86	547.81	584.24	623.46	606.19	582.04	593.90	602.40	616.65	V 4
	VZ 3	485.68	520.39	554.71	654.89	624.68	596.71	515.36	481.15	449.48	VZ 3
	VZ 4	513.97	536.23	573.71	611.62	595.94	573.96	585.06	593.10	606.68	VZ 4
	V-THETA 3	840.61	826.27	811.81	721.47	685.93	666.61	694.20	721.74	747.68	V-THETA 3
	V-THETA 4	95.87	101.66	109.77	119.24	106.94	87.69	86.02	85.73	85.80	V-THETA 4
	M 3	0.8600	0.8661	0.8734	0.8720	0.8245	0.7916	0.7575	0.7576	0.7598	M 3
	M 4	0.4406	0.4626	0.4951	0.5343	0.5164	0.4964	0.5042	0.5101	0.5212	M 4
	TURN(PR)	49.416	47.100	44.819	36.724	37.459	39.393	44.927	47.961	50.810	TURN(PR)
	UUBAR	0.1039	0.1026	0.0872	0.0788	0.0808	0.1165	0.0794	0.0890	0.0921	UUBAR
	LOSS PARA	0.0326	0.0326	0.0281	0.0265	0.0286	0.0435	0.0307	0.0348	0.0364	LOSS PARA
	DFAC	0.7071	0.6800	0.6413	0.5731	0.5740	0.5972	0.5928	0.6002	0.6012	DFAC
	EFFP	0.8838	0.8817	0.8946	0.8961	0.8877	0.8356	0.8770	0.8591	0.8494	EFFP
	INCID	-5.019	-1.605	-0.152	-4.549	-4.979	-6.492	-4.245	-2.558	-1.392	INCID
	DEVM	15.815	16.695	16.629	15.776	14.262	12.665	12.328	11.381	10.298	DEVM
	P 3	22.870	23.191	23.523	23.983	23.555	23.341	23.030	23.191	23.405	P 3
	P 4	21.960	22.270	22.720	23.244	22.870	22.420	22.452	22.538	22.720	P 4
	T 3	608.700	608.400	607.900	599.000	599.600	600.200	606.800	610.500	614.200	T 3
	T 4	608.700	608.400	607.900	599.000	599.600	600.200	606.800	610.500	614.200	T 4

Table B-9. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 84.73 Equivalent Rotor Speed = 8418.75 Equivalent Weight Flow = 36.457 lb/sec
Tip Radial Distortion
U.S. Customary Units

INLET GUIDE VANE	PCT SPAN	95.79	91.71	86.89	70.41	49.21	29.10	13.80	9.00	4.70	PCT SPAN
	DIA	16.749	16.991	17.276	18.252	19.507	20.697	21.603	21.887	22.142	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	12.666	11.948	11.521	11.327	12.134	13.826	15.145	15.787	16.247	BETA 2
	V 1	534.42	534.49	536.76	517.18	456.84	348.59	278.86	270.66	269.88	V 1
	V 2	516.57	525.76	532.54	519.34	468.28	394.42	347.83	342.46	343.68	V 2
	VZ 1	534.41	534.47	536.71	516.99	456.36	347.95	278.16	269.93	269.08	VZ 1
	VZ 2	503.99	514.32	521.70	508.72	456.53	381.00	333.26	326.84	326.99	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	113.26	108.84	106.34	101.90	98.16	93.77	90.20	92.41	95.29	V-THETA 2
	M 1	0.4900	0.4901	0.4923	0.4735	0.4162	0.3153	0.2513	0.2439	0.2432	M 1
	M 2	0.4729	0.4817	0.4882	0.4756	0.4270	0.3578	0.3146	0.3097	0.3108	M 2
	TURN	-12.67	-11.95	-11.52	-11.32	-12.10	-13.75	-15.03	-15.65	-16.10	TURN
	UUBAR	0.0705	0.0562	0.0325	0.0252	0.0526	0.0233	0.0185	0.0197	0.0	UUBAR
	DFAC	0.119	0.099	0.088	0.076	0.064	-0.018	-0.108	-0.116	-0.116	DFAC
	EFFP	38.2873	-1.7551	-1.1482	0.2683	0.5091	0.9264	0.9687	0.9692	0.9999	EFFP
	INCID	5.9000	5.9200	5.9700	6.2500	6.6800	7.0000	7.3200	7.4200	7.4200	INCID
	DEVM	4.334	5.353	6.162	7.484	8.140	7.857	7.671	7.396	7.182	DEVM
	P 1	15.281	15.336	15.357	15.194	14.716	14.020	13.682	13.650	13.650	P 1
	P 2	15.118	15.205	15.281	15.140	14.629	13.998	13.671	13.639	13.650	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	UUBAR FS										UUBAR FS
	PI FS										PI FS
	LOSS PARA FS										LOSS PARA FS
ROTOR F	PCT SPAN	95.01	89.99	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA	16.721	16.943	17.164	17.828	18.713	19.598	20.262	20.483	20.705	DIA
ROTOR -L.E.	BETA 2	4.338	8.977	8.686	8.654	9.446	11.003	12.190	12.712	13.042	BETA 2
ROTOR -T.E.	BETA 3	56.437	52.959	50.212	42.740	42.688	44.691	46.825	46.524	50.505	BETA 3
	BETA(PR) 2	35.885	36.426	36.734	39.225	44.813	52.162	57.066	57.748	57.873	BETA(PR) 2
	BETA(PR) 3	-13.066	-8.817	-5.670	4.396	11.225	17.690	20.749	21.842	23.091	BETA(PR) 3
	V 2	700.14	701.37	709.13	689.01	613.51	508.84	446.50	440.00	442.65	V 2
	V 3	873.29	884.93	894.86	891.17	835.12	774.03	754.82	743.45	731.31	V 3
	VZ 2	690.66	692.77	700.96	680.82	603.94	497.42	433.91	426.52	428.30	VZ 2
	VZ 3	481.00	531.97	572.42	654.26	613.29	547.40	515.20	491.11	463.65	VZ 3
	V-THETA 2	113.00	109.14	107.08	103.61	100.42	96.72	93.74	96.22	99.21	V-THETA 2
	V-THETA 3	726.01	706.90	687.33	684.59	565.69	545.32	549.12	555.57	562.81	V-THETA 3
	V(PR) 2	852.7	861.0	874.7	879.1	852.3	812.2	799.5	800.8	807.0	V(PR) 2
	V(PR) 3	498.0	541.3	575.8	656.6	626.3	576.4	553.5	531.8	507.1	V(PR) 3
	VTHETA PR2	-499.8	-511.2	-523.1	-555.8	-600.0	-640.4	-669.8	-675.9	-682.0	VTHETA PR2
	VTHETA PR3	111.8	82.5	50.8	-30.3	-121.7	-174.6	-195.2	-196.9	-197.8	VTHETA PR3
	U 2	613.42	620.69	630.20	659.37	700.44	737.10	763.56	772.14	781.25	U 2
	U 3	614.22	622.38	630.50	654.89	687.40	719.91	744.30	752.42	760.57	U 3
	M 2	0.6533	0.6546	0.6624	0.6421	0.5669	0.4655	0.4065	0.4004	0.4029	M 2
	M 3	0.7629	0.7952	0.8061	0.8074	0.7516	0.6910	0.6706	0.6590	0.6466	M 3
	M(PR) 2	0.7957	0.8035	0.8171	0.8192	0.7875	0.7431	0.7279	0.7286	0.7345	M(PR) 2
	M(PR) 3	0.4465	0.4864	0.5187	0.5949	0.5637	0.5146	0.4917	0.4714	0.4484	M(PR) 3
	TURN(PR)	48.855	45.145	42.396	34.817	33.546	34.411	36.257	35.851	34.734	TURN(PR)
	UUBAR	0.3915	0.3139	0.2409	0.0286	0.0106	0.0133	0.0110	0.0453	0.0908	UUBAR
	LOSS PARA	0.1228	0.1013	0.0795	0.0099	0.0038	0.0049	0.0041	0.0171	0.0343	LOSS PARA
	DFAC	0.6475	0.5977	0.5617	0.4497	0.4627	0.5004	0.5324	0.5647	0.6033	DFAC
	EFFP	0.6417	0.7069	0.7712	0.9730	0.9879	0.9913	0.9946	0.9676	0.9284	EFFP
	EFF	0.6285	0.6952	0.7613	0.9717	0.9873	0.9908	0.9943	0.9660	0.9248	EFF
	INCID	-19.765	-17.974	-17.268	-14.610	-9.698	-3.408	0.237	0.026	-1.313	INCID
	DEVM	20.929	17.332	14.336	12.393	9.006	8.132	9.350	10.826	13.353	DEVM
	P 2	15.118	15.205	15.281	15.140	14.629	13.998	13.671	13.639	13.650	P 2
	P 3	19.523	20.088	20.611	21.263	20.491	19.653	19.523	19.403	19.273	P 3
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	T 3	581.250	580.500	579.500	573.100	571.800	572.000	574.600	575.600	576.800	T 3
STATOR F	PCT SPAN	95.81	92.01	86.21	69.91	49.21	29.51	14.11	9.31	4.51	PCT SPAN
	DIA	16.659	16.803	17.023	17.641	18.426	19.173	19.757	19.939	20.121	DIA
STATOR-L.E.	BETA 3	56.619	52.380	49.086	41.179	41.181	43.496	45.421	47.109	49.085	BETA 3
STATOR-T.E.	BETA 4	7.434	7.903	8.562	9.107	8.087	8.149	9.652	9.793	9.760	BETA 4
	V 3	869.05	890.39	910.60	919.17	859.66	796.06	775.12	762.80	749.43	V 3
	V 4	674.49	702.49	747.07	800.91	770.86	726.63	713.82	708.66	704.13	V 4
	VZ 3	478.48	543.49	595.92	691.56	646.31	576.31	542.53	517.64	489.34	VZ 3
	VZ 4	668.76	695.74	738.59	790.40	762.27	717.54	700.71	694.73	689.55	VZ 4
	V-THETA 3	720.16	705.23	687.01	604.96	563.41	546.83	550.56	557.23	564.60	V-THETA 3
	V-THETA 4	87.27	96.57	111.20	126.71	108.31	102.74	119.17	119.91	118.61	V-THETA 4
	M 3	0.7792	0.8007	0.8215	0.8362	0.7763	0.7126	0.6904	0.6777	0.6640	M 3
	M 4	0.5902	0.6170	0.6601	0.7167	0.6880	0.6456	0.6312	0.6257	0.6207	M 4
	TURN(PR)	49.185	44.476	40.519	32.058	33.049	35.258	35.648	37.186	39.186	TURN(PR)
	UUBAR	0.0995	0.1116	0.0884	0.0591	0.0630	0.0925	0.1388	0.1397	0.1322	UUBAR
	LOSS PARA	0.0315	0.0357	0.0287	0.0200	0.0224	0.0345	0.0535	0.0544	0.0520	LOSS PARA
	DFAC	0.4597	0.4330	0.3880	0.3079	0.2969	0.3006	0.3004	0.3015	0.3023	DFAC
	EFFP	0.7979	0.7631	0.7866	0.8104	0.7440	0.5422	0.2326	0.1383	0.0431	EFFP
	INCID	-6.381	-7.022	-6.721	-11.140	-11.474	-11.163	-12.242	-11.772	-11.316	INCID
	DEVM	12.684	13.902	14.360	13.853	12.177	12.129	13.611	12.942	11.998	DEVM
	P 3	19.523	20.088	20.611	21.263	20.491	19.653	19.523	19.403	19.273	P 3
	P 4	18.881	19.316	19.958	20.801	20.067	19.131	18.783	18.685	18.620	P 4
	T 3	581.250	580.500	579.500	573.100	571.800	572.000	574.600	575.600	576.800	T 3
	T 4	581.250	580.500	579.500	573.100	571.800	572.000	574.600	575.600	576.800	T 4

Table B-9. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 84.76 Equivalent Rotor Speed = 8422.00 Equivalent Weight Flow = 31.682 lb/sec
Tip Radial Distortion
U.S. Customary Units

INLET GUIDE VANE	PCT SPAN	95.79	91.71	86.89	70.41	49.21	29.10	13.80	9.00	4.70	PCT SPAN
	DIA	16.749	16.991	17.276	18.252	19.507	20.697	21.603	21.887	22.142	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	11.982	11.665	11.381	11.181	11.731	13.417	15.142	15.947	16.749	BETA 2
	V 1	446.50	449.12	451.92	441.04	387.35	307.09	232.50	230.58	230.03	V 1
	V 2	433.04	443.00	450.64	437.23	392.34	328.29	282.13	279.82	277.53	V 2
	VZ 1	446.50	449.10	451.88	440.87	386.95	306.52	231.92	229.95	229.35	VZ 1
	VZ 2	423.60	433.81	441.69	428.51	383.06	317.66	270.31	266.85	263.38	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	89.89	89.56	88.90	84.70	79.54	75.78	73.15	76.25	79.26	V-THETA 2
	M 1	0.4065	0.4089	0.4116	0.4013	0.3512	0.2772	0.2092	0.2074	0.2069	M 1
	M 2	0.3938	0.4032	0.4104	0.3978	0.3558	0.2966	0.2543	0.2522	0.2501	M 2
	TURN	-11.98	-11.66	-11.38	-11.17	-11.70	-13.35	-15.03	-15.81	-16.60	TURN
	UUBAR	0.0590	0.0420	0.0127	0.0403	0.0530	0.0860	0.0254	0.0387	0.0648	UUBAR
	DFAC	0.111	0.094	0.083	0.087	0.072	0.035	-0.078	-0.069	-0.053	DFAC
	EFFP	13.7787	-2.2499	-0.9202	-0.8429	0.3398	0.6319	0.9501	0.9256	0.8775	EFFP
	INCID	5.4000	5.9200	5.9700	6.2500	6.6600	7.0000	7.3200	7.4200	7.4200	INCID
	DEVM	5.019	5.636	6.302	7.630	8.542	8.264	7.673	7.237	6.685	DEVM
	P 1	15.071	15.124	15.146	15.071	14.710	14.264	13.945	13.940	13.940	P 1
	P 2	14.976	15.055	15.124	15.007	14.646	14.200	13.935	13.924	13.914	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	UUBAR FS										UUBAR FS
	P1 FS										P1 FS
	LOSS PARA FS										LOSS PARA FS
ROTOR F	PCT SPAN	95.01	89.99	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA.	16.721	16.943	17.164	17.828	18.713	19.598	20.262	20.483	20.705	DIA
ROTOR -L.E.	BETA 2	9.212	9.117	8.929	8.864	9.371	10.852	12.344	12.995	13.614	BETA 2
ROTOR -T.E.	BETA 3	56.024	56.066	54.152	47.150	46.291	48.411	52.610	55.312	58.110	BETA 3
	BETA(PR) 2	43.278	43.412	43.510	46.082	51.473	58.262	63.206	63.600	64.013	BETA(PR) 2
	BETA(PR) 3	-13.056	-9.654	-6.520	4.634	12.269	19.320	22.001	23.120	24.521	BETA(PR) 3
	V 2	563.20	568.34	570.83	559.20	500.83	416.90	357.66	355.30	352.98	V 2
	V 3	848.80	848.65	848.48	831.40	788.24	735.54	717.43	707.97	699.32	V 3
	VZ 2	555.93	561.16	569.81	552.24	493.12	407.75	347.37	344.03	340.74	VZ 2
	VZ 3	448.54	472.67	496.73	565.23	544.22	487.48	434.80	402.14	368.76	VZ 3
	V-THETA 2	90.16	90.06	89.53	86.12	81.36	78.16	76.02	79.40	82.52	V-THETA 2
	V-THETA 3	718.48	703.03	687.51	609.33	569.32	549.28	568.91	581.01	592.65	V-THETA 3
	V(PR) 2	763.6	772.5	785.7	796.4	792.3	776.1	771.6	774.8	778.7	V(PR) 2
	V(PR) 3	463.8	482.1	500.5	567.5	557.9	518.2	471.1	439.5	407.6	V(PR) 3
	VTHETA PR2	-523.5	-530.9	-540.9	-573.5	-619.3	-659.2	-687.9	-693.0	-699.0	VTHETA PR2
	VTHETA PR3	104.0	80.4	56.8	-45.8	-118.3	-170.9	-175.7	-171.7	-168.2	VTHETA PR3
	U 2	613.65	620.93	630.45	659.62	700.71	737.38	763.88	772.44	781.55	U 2
	U 3	614.46	622.62	630.74	655.14	687.66	720.19	744.59	752.71	760.87	U 3
	M 2	0.5178	0.5228	0.5310	0.5139	0.4579	0.3787	0.3237	0.3215	0.3194	M 2
	M 3	0.7570	0.7573	0.7577	0.7452	0.7034	0.6519	0.6319	0.6219	0.6128	M 3
	M(PR) 2	0.7021	0.7106	0.7233	0.7319	0.7244	0.7050	0.6983	0.7011	0.7046	M(PR) 2
	M(PR) 3	0.4136	0.4302	0.4470	0.5086	0.4978	0.4593	0.4149	0.3860	0.3572	M(PR) 3
	TURN(PR)	56.234	53.012	50.021	41.437	39.165	38.894	41.169	40.451	39.474	TURN(PR)
	UUBAR	0.3270	0.2786	0.2289	0.0495	0.0041	0.0094	0.0613	0.1071	0.1530	UUBAR
	LOSS PARA	0.1026	0.0897	0.0754	0.0171	0.0015	0.0034	0.0228	0.0400	0.0572	LOSS PARA
	DFAC	0.6579	0.6356	0.6155	0.5141	0.5190	0.5634	0.6417	0.6914	0.7413	DFAC
	EFFP	0.7621	0.7918	0.8229	0.9621	0.9979	0.9952	0.9589	0.9267	0.8963	EFFP
	EFF	0.7514	0.7822	0.8144	0.9602	0.9978	0.9950	0.9567	0.9228	0.8908	EFF
	INCID	-12.372	-10.988	-10.491	-7.753	-3.037	2.702	6.396	5.899	4.851	INCID
	DEVM	20.939	16.499	13.487	12.631	10.048	9.758	10.597	12.098	14.777	DEVM
	P 2	14.976	15.055	15.124	15.007	14.646	14.200	13.935	13.924	13.914	P 2
	P 3	20.472	20.764	21.040	21.295	20.902	20.307	20.190	20.116	20.031	P 3
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	T 3	583.200	582.500	581.700	575.500	574.300	574.800	579.300	581.000	582.600	T 3
STATOR F	PCT SPAN	95.81	92.01	86.21	69.91	49.21	29.51	14.11	9.31	4.51	PCT SPAN
	DIA	16.659	16.803	17.023	17.641	18.426	19.173	19.757	19.939	20.121	DIA
STATOR-L.E.	BETA 3	58.200	55.533	53.101	45.772	44.837	47.012	51.076	53.692	56.395	BETA 3
STATOR-T.E.	BETA 4	14.635	13.819	12.621	10.801	10.041	10.215	10.542	10.347	10.055	BETA 4
	V 3	845.58	853.15	860.14	851.14	807.83	754.32	734.83	724.77	715.41	V 3
	V 4	524.97	543.36	574.75	599.71	571.35	536.83	532.56	531.39	530.30	V 4
	VZ 3	445.59	482.81	516.38	593.49	572.28	513.41	460.65	428.20	395.09	VZ 3
	VZ 4	507.92	527.57	560.75	588.78	561.92	527.05	521.35	520.06	518.86	VZ 4
	V-THETA 3	718.65	703.36	687.79	609.71	569.04	550.80	570.40	582.75	594.55	V-THETA 3
	V-THETA 4	132.64	129.77	125.56	112.33	99.50	94.97	97.02	94.95	92.00	V-THETA 4
	M 3	0.7538	0.7618	0.7694	0.7649	0.7227	0.6700	0.6485	0.6378	0.6280	M 3
	M 4	0.4524	0.4693	0.4980	0.5238	0.4983	0.4666	0.4609	0.4591	0.4575	M 4
	TURN(PR)	43.565	41.713	40.476	34.957	34.753	36.713	40.420	43.225	46.217	TURN(PR)
	UUBAR	0.0554	0.0641	0.0514	0.0466	0.0640	0.0584	0.0662	0.0595	0.0500	UUBAR
	LOSS PARA	0.0171	0.0201	0.0165	0.0156	0.0227	0.0217	0.0254	0.0231	0.0196	LOSS PARA
	DFAC	0.6012	0.5816	0.5475	0.4966	0.5042	0.5194	0.5310	0.5369	0.5436	DFAC
	EFFP	0.9258	0.9115	0.9244	0.9248	0.8934	0.8993	0.8800	0.8890	0.9040	EFFP
	INCID	-6.801	-3.870	-2.706	-6.547	-7.818	-7.647	-6.583	-5.182	-3.992	INCID
	DEVM	19.885	19.818	18.418	15.546	14.129	14.190	14.497	13.493	12.291	DEVM
	P 3	20.472	20.764	21.040	21.295	20.902	20.307	20.190	20.116	20.031	P 3
	P 4	20.116	20.339	20.690	20.976	20.509	19.999	19.861	19.829	19.798	P 4
	T 3	583.200	582.500	581.700	575.500	574.300	574.800	579.300	581.000	582.600	T 3
	T 4	583.200	582.500	581.700	575.500	574.300	574.800	579.300	581.000	582.600	T 4

ORIGINAL PAGE IS
OF POOR QUALITY

Table B-9. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 84.77 Equivalent Rotor Speed = 8422.28 Equivalent Weight Flow = 28.990 lb/sec
Tip Radial Distortion
U.S. Customary Units

INLET GUIDE VANE	PCT SPAN	95.79	91.71	86.89	70.41	49.21	29.10	13.80	9.00	4.70	PCT SPAN
	DIA	16.749	16.991	17.276	18.252	19.507	20.697	21.603	21.887	22.142	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	12.000	11.414	11.129	10.828	11.652	13.541	15.162	15.770	16.388	BETA 2
	V 1	405.58	410.90	414.62	395.78	353.67	278.77	214.15	207.49	209.96	V 1
	V 2	391.95	403.40	408.69	398.82	360.81	304.70	265.54	259.99	258.62	V 2
	VZ 1	405.57	410.88	414.58	395.63	353.31	278.26	213.62	206.92	209.34	VZ 1
	VZ 2	383.38	395.38	400.91	391.33	352.38	294.68	254.39	248.15	245.89	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	81.49	79.82	78.86	74.85	72.67	70.97	68.94	70.08	72.31	V-THETA 2
	M 1	0.3682	0.3731	0.3766	0.3590	0.3200	0.2513	0.1925	0.1865	0.1887	M 1
	M 2	0.3555	0.3661	0.3711	0.3619	0.3266	0.2750	0.2392	0.2341	0.2329	M 2
	TURN	-12.00	-11.41	-11.13	-10.82	-11.62	-13.47	-15.05	-15.64	-16.24	TURN
	UUBAR	0.0705	0.0532	0.0410	0.0082	0.0312	0.0170	-0.0876	-0.0778	-0.0304	UUBAR
	DFAC	0.115	0.097	0.091	0.070	0.065	0.015	-0.102	-0.105	-0.078	DFAC
	EFFP	-113.2095	-2.5832	-2.7784	0.6633	0.5768	0.9216	1.1903	1.1548	1.0612	EFFP
	INCID	5.9000	5.9200	5.9700	6.2500	6.6600	7.0000	7.3200	7.4200	7.4200	INCID
	DEVM	5.001	5.887	6.554	7.983	8.621	8.141	7.653	7.412	7.043	DEVM
	P 1	15.004	15.067	15.093	14.973	14.721	14.343	14.091	14.070	14.080	P 1
	P 2	14.910	14.994	15.036	14.962	14.689	14.332	14.122	14.096	14.091	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	UUBAR FS										UUBAR FS
	P1 FS										P1 FS
	LOSS PARA FS										LOSS PARA FS
ROTOR F	PCT SPAN	95.01	89.99	85.60	70.79	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA	16.721	16.943	17.164	17.820	18.713	19.598	20.262	20.483	20.705	DIA
ROTOR -L.E.	BETA 2	9.347	9.032	8.849	8.683	9.381	10.999	12.392	12.891	13.361	BETA 2
ROTOR -T.E.	BETA 3	61.162	56.442	56.033	49.526	49.912	52.468	56.385	59.420	62.492	BETA 3
	BETA(PR) 2	46.971	46.959	47.208	49.504	54.306	60.446	64.778	65.495	65.830	BETA(PR) 2
	BETA(PR) 3	-13.032	-9.139	-6.026	5.377	12.403	19.634	22.517	23.452	24.847	BETA(PR) 3
	V 2	503.23	511.27	516.30	504.37	457.06	385.26	335.80	329.16	328.02	V 2
	V 3	805.36	812.08	819.04	797.48	759.01	713.76	702.08	697.00	692.19	V 3
	VZ 2	496.54	504.93	510.13	498.33	450.00	376.61	326.08	318.85	316.98	VZ 2
	VZ 3	387.77	424.35	457.47	517.49	488.42	434.26	388.05	354.05	319.24	VZ 3
	V-THETA 2	81.73	80.26	79.42	76.11	74.34	73.20	71.64	72.97	75.28	V-THETA 2
	V-THETA 3	704.24	690.90	679.06	606.46	580.27	565.29	583.74	599.14	613.06	V-THETA 3
	V(PR) 2	727.7	739.8	750.9	767.5	771.8	764.4	766.1	769.6	775.1	V(PR) 2
	V(PR) 3	400.9	432.2	460.5	520.1	500.9	462.5	422.0	387.9	353.8	V(PR) 3
	VTHETA PR2	-531.9	-540.7	-551.1	-583.5	-626.4	-664.2	-692.3	-699.5	-706.3	VTHETA PR2
	VTHETA PR3	89.8	68.3	48.3	-48.7	-107.4	-154.9	-160.9	-153.6	-147.8	VTHETA PR3
	U 2	613.67	620.95	630.47	659.65	700.73	737.41	763.90	772.47	781.58	U 2
	U 3	614.48	622.64	630.76	655.16	687.69	720.21	744.61	752.73	760.89	U 3
	M 2	0.4602	0.4679	0.4727	0.4613	0.4164	0.3493	0.3035	0.2974	0.2964	M 2
	M 3	0.7147	0.7215	0.7286	0.7112	0.6735	0.6296	0.6160	0.6101	0.6043	M 3
	M(PR) 2	0.6654	0.6770	0.6875	0.7020	0.7032	0.6929	0.6924	0.6954	0.7003	M(PR) 2
	M(PR) 3	0.3557	0.3840	0.4096	0.4638	0.4445	0.4079	0.3702	0.3395	0.3088	M(PR) 3
	TURN(PR)	54.909	56.047	53.227	44.116	41.866	40.770	42.233	42.023	40.975	TURN(PR)
	UUBAR	0.3068	0.3045	0.2387	0.0871	0.0667	0.0771	0.1125	0.1589	0.2013	UUBAR
	LOSS PARA	0.1151	0.0982	0.0787	0.0301	0.0239	0.0281	0.0418	0.0592	0.0751	LOSS PARA
	DFAC	0.7249	0.6860	0.6517	0.5608	0.5686	0.6401	0.7133	0.7693	0.8240	DFAC
	EFFP	0.7556	0.7905	0.8327	0.9375	0.9475	0.9452	0.9259	0.9029	0.8716	EFFP
	EFF	0.7448	0.7613	0.8246	0.9344	0.9448	0.9424	0.9219	0.8977	0.8646	EFF
	INCID	-8.679	-7.441	-6.793	-4.331	-0.202	4.890	7.974	7.802	6.676	INCID
	DEVM	20.962	17.012	13.980	13.373	10.182	10.070	11.111	12.429	15.102	DEVM
	P 2	14.910	14.994	15.036	14.962	14.689	14.332	14.122	14.096	14.091	P 2
	P 3	20.254	20.632	20.999	21.125	20.852	20.422	20.464	20.448	20.432	P 3
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	T 3	582.400	582.100	581.700	576.200	576.500	577.300	581.600	583.500	585.900	T 3
STATOR F	PCT SPAN	95.81	92.01	86.21	69.91	49.21	29.51	14.11	9.31	4.51	PCT SPAN
	DIA	16.659	16.803	17.023	17.641	18.426	19.173	19.757	19.939	20.121	DIA
STATOR-L.E.	BETA 3	61.350	57.911	55.018	48.194	48.384	50.945	54.694	57.586	60.501	BETA 3
STATOR-T.E.	BETA 4	15.309	14.575	13.630	12.170	11.101	10.795	10.536	10.241	10.031	BETA 4
	V 3	802.69	815.40	824.20	814.34	776.46	731.08	718.55	713.14	707.84	V 3
	V 4	446.28	470.78	505.68	544.15	523.63	501.87	506.75	513.20	520.75	V 4
	VZ 3	384.66	433.42	475.35	542.69	515.24	459.93	414.49	381.57	347.95	VZ 3
	VZ 4	430.42	459.56	491.34	531.65	513.42	491.80	496.09	502.42	509.56	VZ 4
	V-THETA 3	704.40	691.23	679.33	606.83	579.99	566.85	585.27	600.93	615.02	V-THETA 3
	V-THETA 4	117.82	118.45	119.14	114.66	100.74	93.77	92.27	90.77	90.13	V-THETA 4
	M 3	0.7121	0.7256	0.7386	0.7278	0.6904	0.6461	0.6316	0.6254	0.6190	M 3
	M 4	0.3827	0.4045	0.4357	0.4726	0.4541	0.4340	0.4367	0.4418	0.4476	M 4
	TURN(PR)	46.041	43.335	41.384	36.011	37.241	40.069	44.049	47.233	50.360	TURN(PR)
	UUBAR	0.0886	0.1068	0.1053	0.0619	0.0738	0.0609	0.0741	0.0609	0.0451	UUBAR
	LOSS PARA	0.0273	0.0334	0.0336	0.0207	0.0261	0.0226	0.0284	0.0237	0.0177	LOSS PARA
	DFAC	0.6781	0.6511	0.6130	0.5399	0.5500	0.5609	0.5670	0.5674	0.5650	DFAC
	EFFP	0.8914	0.8649	0.8598	0.9069	0.8852	0.9007	0.8721	0.8902	0.9146	EFFP
	INCID	-3.651	-1.491	-0.788	-4.125	-4.271	-3.712	-2.960	-1.279	0.127	INCID
	DEVM	20.558	20.573	19.428	16.914	15.188	14.769	14.491	13.388	12.267	DEVM
	P 3	20.254	20.632	20.999	21.125	20.852	20.422	20.464	20.448	20.432	P 3
	P 4	19.739	19.981	20.327	20.737	20.432	20.117	20.107	20.159	20.222	P 4
	T 3	582.400	582.100	581.700	576.200	576.500	577.300	581.600	583.500	585.900	T 3
	T 4	582.400	582.100	581.700	576.200	576.500	577.300	581.600	583.500	585.900	T 4

Table B-9. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed =69.85 Equivalent Rotor Speed = 6939.98 Equivalent Weight Flow = 31.381lb/sec
Tip Radial Distortion
U.S. Customary Units

INLET GUIDE VANE											
	PCT SPAN	95.79	91.71	86.89	70.41	49.21	29.10	13.80	9.00	4.70	PCT SPAN
	DIA	16.749	16.991	17.276	18.252	19.507	20.697	21.603	21.887	22.142	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	12.146	11.646	11.435	11.428	11.947	13.366	15.198	16.218	17.463	BETA 2
	V 1	439.15	446.28	453.30	439.20	386.58	302.61	235.73	229.74	223.58	V 1
	V 2	434.29	445.74	450.46	436.72	392.85	331.45	284.50	281.02	276.62	V 2
	VZ 1	439.15	446.27	453.26	439.04	386.18	302.06	235.14	229.11	222.93	VZ 1
	VZ 2	424.55	436.52	441.43	427.64	383.06	320.79	272.51	267.64	261.53	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	91.37	89.97	89.28	86.45	81.05	76.22	74.03	77.85	82.28	V-THETA 2
	M 1	0.3996	0.4063	0.4129	0.3996	0.3505	0.2731	0.2121	0.2067	0.2011	M 1
	M 2	0.3950	0.4058	0.4102	0.3973	0.3561	0.2995	0.2565	0.2533	0.2493	M 2
	TURN	-12.15	-11.64	-11.43	-11.42	-11.91	-13.29	-15.08	-16.08	-17.30	TURN
	UUBAR	0.0338	0.0261	0.0315	0.0439	0.0530	0.0295	0.0123	0.0	0.0	UUBAR
	DFAC	0.095	0.083	0.086	0.086	0.071	0.011	-0.072	-0.075	-0.073	DFAC
	EFFP	-2.3067	-0.1112	-0.7412	-0.3801	0.3859	0.8752	0.9744	0.9999	0.9999	EFFP
	INCID	5.9000	5.9200	5.9700	6.2500	6.6600	7.0000	7.3200	7.4200	7.4200	INCID
	DEVM	4.855	5.656	6.748	7.383	8.327	8.315	7.618	6.968	5.977	DEVM
	P 1	15.034	15.118	15.171	15.071	14.716	14.250	13.964	13.942	13.921	P 1
	P 2	14.981	15.076	15.118	15.002	14.652	14.228	13.958	13.942	13.921	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	UUBAR FS										UUBAR FS
	P1 FS										P1 FS
	LOSS PARA FS										LOSS PARA FS

ROTOR F											
	PCT SPAN	95.01	89.99	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA	16.721	16.943	17.144	17.828	18.713	19.598	20.262	20.483	20.705	DIA
ROTOR -L.E.	BETA 2	9.334	9.094	8.972	8.061	9.561	10.803	12.364	13.212	14.190	BETA 2
ROTOR -T.E.	BETA 3	54.324	51.198	48.609	42.142	41.959	43.484	45.306	47.083	49.451	BETA 3
	BETA(PR) 2	36.595	36.694	37.029	39.579	45.068	52.088	57.621	58.134	58.755	BETA(PR) 2
	BETA(PR) 3	-13.076	-9.600	-6.962	3.271	10.256	16.529	20.409	21.562	22.462	BETA(PR) 3
	V 2	565.07	572.39	576.57	558.45	501.27	421.18	360.80	356.90	351.78	V 2
	V 3	740.99	763.68	776.72	757.08	706.22	658.08	632.51	621.08	611.26	V 3
	VZ 2	557.59	565.20	569.49	551.20	493.31	412.00	350.37	345.28	338.75	VZ 2
	VZ 3	436.27	477.48	513.33	561.15	524.66	476.61	443.70	421.75	396.25	VZ 3
	V-THETA 2	91.64	90.47	89.91	87.90	82.92	78.62	76.93	81.06	85.66	V-THETA 2
	V-THETA 3	607.66	593.81	582.44	507.78	471.73	452.02	448.47	453.59	463.15	V-THETA 3
	V(PR) 2	694.5	704.9	713.4	715.4	699.2	671.6	655.4	655.2	654.4	V(PR) 2
	V(PR) 3	451.1	486.9	517.7	562.5	534.1	498.*	475.6	455.8	431.2	V(PR) 3
	VTHETA PR2	-414.0	-421.2	-429.6	-445.7	-494.5	-529.0	-552.5	-555.5	-558.4	VTHETA PR2
	VTHETA PR3	101.3	80.8	62.7	-72.1	-94.9	-141.4	-165.1	-166.7	-163.*	VTHETA PR3
	U 2	505.67	511.66	519.51	543.55	577.41	607.63	629.46	636.51	644.02	U 2
	U 3	506.33	513.06	519.75	539.86	566.66	593.45	613.56	620.25	626.98	U 3
	M 2	0.5196	0.5267	0.5308	0.5132	0.4583	0.3827	0.3266	0.3230	0.3183	M 2
	M 3	0.6739	0.6876	0.7009	0.6849	0.6356	0.5892	0.5642	0.5531	0.5434	M 3
	M(PR) 2	0.6386	0.6486	0.6567	0.6574	0.6293	0.6103	0.5933	0.5930	0.5920	M(PR) 2
	M(PR) 3	0.4063	0.4384	0.4671	0.5088	0.4807	0.4465	0.4242	0.4059	0.3834	M(PR) 3
	TURN(PR)	49.576	46.241	43.983	36.265	34.760	35.495	37.151	36.517	36.246	TURN(PR)
	UUBAR	0.3322	0.2549	0.1739	0.0109	-0.0025	-0.0128	-0.0202	0.0154	0.0586	UUBAR

	LOSS PARA	0.1042	0.0821	0.0573	0.0038	-0.0009	-0.0047	-0.0076	0.0058	0.0223	LOSS PARA
	DFAC	0.5900	0.5429	0.5034	0.4162	0.4375	0.4688	0.4979	0.5311	0.5736	DFAC
	EFFP	0.7053	0.7659	0.8305	0.9935	1.0033	1.0161	1.0214	0.9878	0.9567	EFFP
	EFF	0.6969	0.7587	0.8342	0.9933	1.0034	1.0167	1.0222	0.9874	0.9551	EFF
	INCID	-10.055	-17.706	-16.972	-14.256	-9.443	-3.481	0.793	0.414	-0.427	INCID
	DEVM	20.919	16.553	13.045	11.269	8.038	6.974	9.012	10.547	12.727	DEVM
	P 2	14.981	15.076	15.118	15.002	14.652	14.228	13.958	13.942	13.921	P 2
	P 3	18.275	18.673	19.059	19.123	18.604	18.127	17.926	17.825	17.735	P 3
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	T 3	562.200	561.800	561.250	556.700	555.200	555.250	556.300	556.900	557.600	T 3

STATOR F											
	PCT SPAN	95.61	92.01	86.21	69.91	49.21	29.51	14.11	9.31	4.51	PCT SPAN
	DIA	16.659	16.803	17.023	17.641	18.426	19.173	19.757	19.939	20.121	DIA
STATOR-L.E.	BETA 3	54.374	50.774	47.886	41.185	40.904	42.465	44.274	46.038	48.365	BETA 3
STATOR-T.E.	BETA 4	10.210	9.928	9.403	7.994	7.013	7.492	9.333	9.524	9.424	BETA 4
	V 3	747.76	766.94	785.56	771.90	720.87	672.78	645.99	633.98	623.62	V 3
	V 4	571.69	597.54	639.45	661.29	634.77	599.42	577.84	574.33	570.73	V 4
	VZ 3	435.56	484.97	526.74	580.70	544.24	495.27	461.19	438.75	413.03	VZ 3
	VZ 4	562.61	588.52	630.73	654.52	629.25	592.86	567.75	563.49	559.46	VZ 4
	V-THETA 3	607.81	594.09	589.67	508.10	471.50	453.27	449.64	454.94	464.63	V-THETA 3
	V-THETA 4	101.33	103.01	104.44	91.92	77.41	77.97	93.31	94.53	92.86	V-THETA 4
	M 3	0.6717	0.6908	0.7097	0.6996	0.6499	0.6033	0.5770	0.5653	0.5551	M 3
	M 4	0.5042	0.5284	0.5681	0.5917	0.5669	0.5334	0.5127	0.5092	0.5055	M 4
	TURN(PR)	44.165	40.844	38.479	33.176	33.845	34.882	34.819	36.383	38.800	TURN(PR)
	UUBAR	0.0899	0.0987	0.0721	0.0417	0.0415	0.0697	0.1170	0.1113	0.1044	UUBAR
	LOSS PARA	0.0279	0.0314	0.0273	0.0141	0.0148	0.0261	0.0451	0.0433	0.0411	LOSS PARA
	DFAC	0.4525	0.4289	0.3868	0.3289	0.3183	0.3223	0.3248	0.3226	0.3270	DFAC
	EFFP	0.8179	0.7880	0.8223	0.8700	0.8434	0.7062	0.4829	0.4501	0.4288	EFFP
	INCID	-10.626	-8.628	-7.921	-11.134	-11.750	-12.194	-13.388	-12.843	-12.036	INCID
	DEVM	15.459	15.927	15.201	12.740	11.104	11.473	13.293	12.674	11.664	DEVM
	P 3	18.275	18.673	19.059	19.123	18.604	18.127	17.926	17.825	17.735	P 3
	P 4	17.852	18.170	18.667	18.901	18.413	17.852	17.502	17.439	17.386	P 4
	T 3	562.700	561.800	561.250	556.200	555.200	555.250	556.300	556.900	557.600	T 3
	T 4	562.30	561.800	561.250	556.200	555.200	555.250	556.300	556.900	557.600	T 4

Table B-9. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 69.90 Equivalent Rotor Speed = 6945.75 Equivalent Weight Flow = 26.363 lb/sec
Tip Radial Distortion
U.S. Customary Units

INLET GUIDE VANE	PCT SPAN	95.79	91.71	86.89	70.41	49.21	29.10	13.80	9.00	4.70	PCT SPAN
	DIA	16.749	16.991	17.276	18.262	19.507	20.697	21.603	21.887	22.142	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	12.495	11.917	11.374	11.286	11.790	13.630	15.276	16.187	17.671	BETA 2
	V 1	360.57	368.20	371.50	359.36	319.87	258.74	207.94	198.06	197.43	V 1
	V 2	360.71	367.42	374.62	362.73	326.66	276.84	240.66	238.17	237.92	V 2
	VZ 1	366.56	368.19	371.47	359.23	319.54	258.26	207.42	197.52	196.85	VZ 1
	VZ 2	352.16	359.47	367.18	355.37	318.87	267.65	230.44	226.97	224.68	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	78.04	75.86	73.87	70.92	66.56	64.90	62.94	65.86	71.58	V-THETA 2
	M 1	0.3319	0.3334	0.3365	0.3253	0.2889	0.2330	0.1869	0.1780	0.1774	M 1
	M 2	0.3265	0.3327	0.3394	0.3284	0.2951	0.2495	0.2166	0.2143	0.2141	M 2
	TURN	-12.49	-11.92	-11.37	-11.27	-11.76	-13.56	-15.16	-16.05	-17.51	TURN
	UUBAR	0.0473	0.0374	0.0092	0.0246	0.0564	0.0970	0.1211	0.0668	0.0673	UUBAR
	DFAC	0.102	0.085	0.072	0.071	0.065	0.036	-0.027	-0.057	-0.044	DFAC
	EFFP	-2.3491	-0.1350	0.4575	0.4438	0.4402	0.6042	0.7399	0.8713	0.8718	EFFP
	INCID	5.9000	5.9200	5.9700	6.2500	6.6600	7.0000	7.3200	7.4200	7.4200	INCID
	DEVM	4.505	5.384	6.308	7.526	8.483	8.052	7.540	6.998	5.770	DEVM
	P 1	14.941	14.973	14.993	14.926	14.713	14.433	14.246	14.215	14.215	P 1
	P 2	14.890	14.931	14.983	14.900	14.666	14.381	14.204	14.194	14.194	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	UUBAR FS										UUBAR FS
	P1 FS										P1 FS
	LOSS PARA FS										LOSS PARA FS
ROTOR F	PCT SPAN	95.01	89.99	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA	16.721	16.943	17.164	17.828	18.713	19.598	20.262	20.483	20.705	DIA
ROTOR -L.E.	BETA 2	9.808	9.511	9.118	9.126	9.558	11.121	12.527	13.269	14.439	BETA 2
ROTOR -T.E.	BETA 3	58.763	56.466	54.121	47.061	46.252	48.482	52.797	55.791	59.301	BETA 3
	BETA(PR) 2	43.377	43.745	43.871	46.433	51.578	57.821	62.463	62.909	63.081	BETA(PR) 2
	BETA(PR) 3	-13.753	-10.118	-6.910	4.620	11.964	12.645	21.651	22.683	24.086	BETA(PR) 3
	V 2	454.48	461.67	469.42	454.86	410.93	348.49	303.29	300.64	300.89	V 2
	V 3	697.42	699.85	703.94	686.36	653.22	611.75	593.58	585.64	577.71	V 3
	VZ 2	452.77	455.32	463.47	448.87	404.39	340.53	294.37	290.78	289.44	VZ 2
	VZ 3	360.93	385.95	412.42	467.14	451.32	404.88	358.21	328.63	294.42	VZ 3
	V-THETA 2	78.27	76.28	74.38	72.11	68.09	66.94	65.41	68.57	74.52	V-THETA 2
	V-THETA 3	596.10	582.35	570.16	502.55	471.49	457.34	471.87	483.41	495.88	V-THETA 3
	V(PR) 2	622.9	630.3	642.9	651.4	651.2	640.2	637.5	639.4	640.3	V(PR) 2
	V(PR) 3	374.2	394.2	415.9	469.0	462.1	428.6	387.2	358.0	324.3	V(PR) 3
	VTHETA PR2	-427.8	-435.8	-445.6	-471.0	-509.8	-541.2	-564.6	-568.5	-570.0	VTHETA PR2
	VTHETA PR3	88.3	68.9	50.0	-37.8	-95.6	-136.6	-142.2	-137.4	-131.6	VTHETA PR3
	U 2	506.09	512.09	518.94	544.00	577.89	608.13	629.98	637.04	644.56	U 2
	U 3	506.76	513.48	520.18	540.21	567.13	593.95	614.07	620.77	627.50	U 3
	M 2	0.4187	0.4208	0.4281	0.4143	0.3732	0.3152	0.2737	0.2713	0.2715	M 2
	M 3	0.6228	0.6253	0.6294	0.6152	0.5837	0.5441	0.5256	0.5176	0.5097	M 3
	M(PR) 2	0.5676	0.5744	0.5863	0.5934	0.5914	0.5791	0.5753	0.5769	0.5777	M(PR) 2
	M(PR) 3	0.3342	0.3522	0.3719	0.4203	0.4129	0.3813	0.3428	0.3164	0.2861	M(PR) 3
	TURN(PR)	57.031	53.807	50.772	41.800	39.574	39.125	40.771	40.193	38.971	TURN(PR)
	UUBAR	0.3137	0.2634	0.2098	0.0400	-0.0062	-0.0006	0.0566	0.1030	0.1494	UUBAR
	LOSS PARA	0.0981	0.0847	0.0691	0.0138	-0.0022	-0.0002	0.0211	0.0386	0.0561	LOSS PARA
	DFAC	0.6667	0.6374	0.6080	0.5081	0.5149	0.5626	0.6445	0.6993	0.7592	DFAC
	EFFP	0.7751	0.8043	0.8386	0.9691	1.0043	1.0015	0.9587	0.9271	0.8945	EFFP
	EFF	0.7680	0.7979	0.8332	0.9680	1.0045	1.0016	0.9572	0.9244	0.8907	EFF
	INCID	-12.273	-10.655	-10.130	-7.402	-2.932	2.260	5.650	5.205	3.915	INCID
	DEVM	20.746	16.038	13.097	12.617	9.744	9.084	10.249	11.663	14.344	DEVM
	P 2	14.890	14.931	14.983	14.900	14.666	14.381	14.204	14.194	14.194	P 2
	P 3	18.534	18.721	18.929	19.001	18.804	18.472	18.368	18.326	18.274	P 3
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	T 3	562.300	562.100	561.700	557.250	556.700	557.100	560.000	561.200	562.300	T 3
STATOR F	PCT SPAN	95.81	92.01	86.21	69.91	49.21	29.51	14.11	9.31	4.51	PCT SPAN
	DIA	16.659	16.803	17.023	17.641	18.426	19.173	19.757	19.939	20.121	DIA
STATOR-L.E.	BETA 3	58.944	56.045	53.390	46.134	45.147	47.376	51.555	54.457	57.839	BETA 3
STATOR-T.E.	BETA 4	15.311	14.233	12.665	10.339	9.708	10.178	11.668	11.752	11.762	BETA 4
	V 3	695.57	702.43	710.64	697.71	665.41	624.35	605.40	597.17	588.82	V 3
	V 4	452.59	469.93	499.07	516.36	496.37	467.46	466.31	464.02	461.07	V 4
	VZ 3	359.86	392.32	423.76	483.34	468.86	422.05	375.59	346.40	312.80	VZ 3
	VZ 4	436.50	455.46	486.83	507.71	488.67	458.99	454.75	451.98	448.57	VZ 4
	V-THETA 3	595.24	582.63	570.39	502.86	471.27	458.60	473.11	484.86	497.47	V-THETA 3
	V-THETA 4	119.51	115.52	109.40	92.62	83.60	82.40	93.91	94.02	93.40	V-THETA 4
	M 3	0.6210	0.6277	0.6359	0.6261	0.5953	0.5560	0.5367	0.5284	0.5201	M 3
	M 4	0.3954	0.4111	0.4377	0.4554	0.4373	0.4108	0.4086	0.4061	0.4030	M 4
	TURN(PR)	43.533	41.811	40.721	35.782	35.395	37.114	39.778	42.594	45.969	TURN(PR)
	UUBAR	0.0636	0.0666	0.0529	0.0377	0.0596	0.0712	0.0667	0.0654	0.0641	UUBAR
	LOSS PARA	0.0196	0.0209	0.0169	0.0127	0.0211	0.0264	0.0255	0.0253	0.0250	LOSS PARA
	DFAC	0.5685	0.5471	0.5118	0.4624	0.4661	0.4817	0.4787	0.4859	0.4956	DFAC
	EFFP	0.9037	0.8951	0.9097	0.9280	0.8820	0.8553	0.8527	0.8512	0.8502	EFFP
	INCID	-6.156	-3.358	-2.416	-6.185	-7.509	-7.283	-6.103	-4.415	-2.544	INCID
	DEVM	20.561	20.231	18.463	15.083	13.797	14.153	15.619	14.891	13.987	DEVM
	P 3	18.534	18.721	18.929	19.001	18.804	18.472	18.368	18.326	18.274	P 3
	P 4	18.264	18.430	18.690	18.835	18.565	18.223	18.150	18.119	18.077	P 4
	T 3	562.300	562.100	561.700	557.250	556.700	557.100	560.000	561.200	562.300	T 3
	T 4	562.300	562.100	561.700	557.250	556.700	557.100	560.000	561.200	562.300	T 4

Table B-9. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 69.85 Equivalent Rotor Speed = 6940.37 Equivalent Weight Flow = 23.854 lb/sec
Tip Radial Distortion
U.S. Customary Units

INLET GUIDE VANE	PCT SPAN	95.79	91.71	86.89	70.41	49.21	29.10	13.80	9.00	4.70	PCT SPAN
	DIA	16.749	16.991	17.276	18.252	19.507	20.697	21.603	21.887	22.142	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	12.079	11.560	11.082	10.889	11.559	12.938	14.940	15.989	16.832	BETA 2
	V 1	320.95	327.90	331.63	321.88	291.57	240.02	189.44	182.59	179.01	V 1
	V 2	319.87	330.39	335.17	326.06	298.64	252.03	218.98	213.60	210.65	V 2
	VZ 1	320.95	327.89	331.60	321.76	291.27	239.58	188.96	182.09	178.48	VZ 1
	VZ 2	312.78	323.66	326.84	319.87	289.81	244.35	210.00	203.66	199.83	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	66.94	66.20	64.41	61.54	59.27	56.13	56.03	58.36	60.45	V-THETA 2
	M 1	0.2899	0.2963	0.2997	0.2907	0.2630	0.2160	0.1702	0.1640	0.1607	M 1
	M 2	0.2889	0.2986	0.3029	0.2946	0.2676	0.2269	0.1969	0.1920	0.1894	M 2
	TURN	-12.08	-11.56	-11.08	-10.88	-11.53	-12.87	-14.83	-15.86	-16.68	TURN
	UUBAR	0.0368	0.0234	0.0114	0.0122	0.0373	0.0667	0.0	0.0	0.0	UUBAR
	DFAC	0.087	0.074	0.068	0.065	0.067	0.049	-0.029	-0.030	-0.026	DFAC
	EFFP	-0.2328	0.4024	0.6597	0.6893	0.4923	0.6107	0.9999	0.9998	1.0000	EFFP
	INCID	5.9000	5.9200	5.9700	6.2500	6.6600	7.0000	7.3200	7.4200	7.4200	INCID
	DEVM	4.921	5.741	6.600	7.922	8.714	8.741	7.874	7.195	6.603	DEVM
	P 1	14.857	14.909	14.930	14.878	14.728	14.507	14.331	14.310	14.300	P 1
	P 2	14.826	14.888	14.919	14.868	14.703	14.476	14.331	14.310	14.300	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	516.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	UUBAR FS										UUBAR FS
	P1 FS										P1 FS
	LOSS PARA FS										LOSS PARA FS
ROTOR F	PCT SPAN	95.01	89.99	85.00	70.00	50.00	30.00	15.00	10.01	4.99	PCT SPAN
	DIA	16.721	16.943	17.164	17.828	18.713	19.598	20.262	20.483	20.705	DIA
ROTOR -L.E.	BETA 2	9.565	9.296	8.955	8.870	9.420	10.596	12.286	13.146	13.804	BETA 2
ROTOR -T.E.	BETA 3	62.253	58.959	56.256	49.418	49.773	51.275	56.294	59.081	61.947	BETA 3
	BETA(PR) 2	47.745	47.583	47.847	50.187	54.731	60.622	64.916	65.685	66.212	BETA(PR) 2
	BETA(PR) 3	-15.332	-10.936	-7.251	5.598	12.264	19.195	21.310	22.258	23.759	BETA(PR) 3
	V 2	404.05	412.11	416.69	406.01	371.27	316.18	275.26	268.85	265.57	V 2
	V 3	669.66	676.67	683.37	656.00	627.40	595.53	586.23	581.60	576.34	V 3
	VZ 2	398.43	406.69	411.59	400.95	365.50	309.50	267.41	260.16	256.16	VZ 2
	VZ 3	311.26	349.43	379.48	426.62	404.89	372.04	324.79	298.37	270.64	VZ 3
	V-THETA 2	67.14	66.57	64.86	62.57	60.64	57.90	58.23	60.76	62.94	V-THETA 2
	V-THETA 3	591.70	580.60	568.06	498.07	478.67	463.96	486.90	498.17	507.87	V-THETA 3
	V(PR) 2	592.5	602.9	613.3	626.3	633.4	631.6	631.4	632.5	635.8	V(PR) 2
	V(PR) 3	325.0	357.6	382.9	429.0	415.0	395.2	350.2	324.0	297.4	V(PR) 3
	VTHETA PR2	-438.6	-445.1	-454.7	-481.0	-516.8	-549.8	-571.3	-575.8	-581.1	VTHETA PR2
	VTHETA PR3	85.3	87.5	88.3	-41.8	-88.0	-129.5	-126.7	-122.1	-119.1	VTHETA PR3
	U 2	505.70	511.69	519.54	543.58	577.44	607.66	629.49	636.55	644.06	U 2
	U 3	506.36	513.09	519.78	539.89	566.69	593.49	613.60	620.29	627.01	U 3
	M 2	0.3667	0.3743	0.3785	0.3686	0.3363	0.2855	0.2481	0.2422	0.2392	M 2
	M 3	0.5958	0.6046	0.6093	0.5858	0.5583	0.5281	0.5177	0.5128	0.5073	M 3
	M(PR) 2	0.5376	0.5476	0.5572	0.5686	0.5737	0.5703	0.5690	0.5699	0.5728	M(PR) 2
	M(PR) 3	0.2892	0.3188	0.3414	0.3830	0.3693	0.3505	0.3093	0.2857	0.2618	M(PR) 3
	TURN(PR)	62.967	58.458	55.089	44.578	42.429	41.383	43.573	43.402	42.442	TURN(PR)
	UUBAR	0.3786	0.3048	0.2392	0.0965	0.0789	0.0726	0.1301	0.1643	0.2019	UUBAR
	LOSS PARA	0.1176	0.0978	0.0787	0.0333	0.0283	0.0265	0.0487	0.0618	0.0760	LOSS PARA
	DFAC	0.7368	0.6855	0.6478	0.5551	0.5840	0.6192	0.7136	0.7641	0.8152	DFAC
	EFFP	0.7541	0.7943	0.8319	0.9256	0.9320	0.9456	0.9097	0.8913	0.8658	EFFP
	EFF	0.7464	0.7876	0.8262	0.9231	0.9257	0.9437	0.9064	0.8872	0.8608	EFF
	INCID	-7.495	-6.817	-6.154	-3.648	0.223	5.066	8.112	7.992	7.060	INCID
	DEVM	18.678	15.225	12.756	13.594	10.044	9.633	9.909	11.240	14.018	DEVM
	P 2	14.826	14.888	14.919	14.868	14.703	14.476	14.331	14.310	14.300	P 2
	P 3	18.407	18.675	18.881	18.809	18.685	18.499	18.520	18.520	18.499	P 3
	T 2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 2
	T 3	563.000	562.750	562.400	557.750	558.250	558.600	562.200	563.400	564.700	T 3
STATOR F	PCT SPAN	95.81	92.01	86.21	69.91	49.21	29.51	14.11	9.31	4.51	PCT SPAN
	DIA	16.659	16.803	17.023	17.641	18.426	19.173	19.757	19.939	20.121	DIA
STATOR-L.E.	BETA 3	62.376	58.530	55.501	48.440	48.580	50.090	54.904	57.584	60.332	BETA 3
STATOR-T.E.	BETA 4	17.656	16.799	15.103	11.985	11.016	11.653	12.210	12.479	12.842	BETA 4
	V 3	667.99	681.07	684.62	666.25	638.57	607.50	597.78	592.97	587.39	V 3
	V 4	386.31	411.42	447.07	451.13	439.30	423.75	431.19	434.22	437.76	V 4
	VZ 3	309.73	355.55	390.56	441.86	422.11	389.15	343.05	317.29	290.24	VZ 3
	VZ 4	367.68	393.82	431.54	441.07	430.69	414.02	414.67	421.81	424.17	VZ 4
	V-THETA 3	591.84	580.87	568.29	498.38	478.44	465.25	488.17	499.66	509.50	V-THETA 3
	V-THETA 4	116.45	118.90	116.46	93.63	83.84	85.38	90.81	93.35	96.70	V-THETA 4
	M 3	0.5942	0.6066	0.6152	0.5955	0.5689	0.5394	0.5285	0.5234	0.5176	M 3
	M 4	0.3356	0.3583	0.3904	0.3957	0.3849	0.3707	0.3762	0.3785	0.3812	M 4
	TURN(PR)	44.620	41.730	40.395	36.442	37.522	38.357	42.593	45.005	47.396	TURN(PR)
	UUBAR	0.0816	0.0941	0.0703	0.0527	0.0672	0.0745	0.0772	0.0736	0.0635	UUBAR
	LOSS PARA	0.0249	0.0291	0.0223	0.0176	0.0237	0.0275	0.0295	0.0284	0.0247	LOSS PARA
	DFAC	0.6488	0.6164	0.5679	0.5321	0.5369	0.5416	0.5427	0.5429	0.5401	DFAC
	EFFP	0.8910	0.8692	0.8937	0.9143	0.8863	0.8692	0.8546	0.8564	0.8707	EFFP
	INCID	-2.625	-0.875	-0.306	-3.879	-4.075	-4.568	-2.749	-1.280	-0.042	INCID
	DEVM	23.105	22.796	20.900	16.729	15.103	15.625	16.158	15.614	15.061	DEVM
	P 3	18.407	18.675	18.881	18.809	18.685	18.499	18.520	18.520	18.499	P 3
	P 4	18.087	18.288	18.582	18.597	18.436	18.252	18.272	18.288	18.303	P 4
	T 3	563.000	562.750	562.400	557.750	558.250	558.600	562.200	563.400	564.700	T 3
	T 4	563.000	562.750	562.400	557.750	558.250	558.600	562.200	563.400	564.700	T 4

ORIGINAL PAGE IS
OF POOR QUALITY

Table B-10. Overall Performance of Stage F, 180 deg Arc Circumferential Distortion

(IGV Inlet) Equivalent Weight Flow kg/sec	lb/sec	Rotor $\overline{P}_3/\overline{P}_2$	Rotor η_{ad}	Rotor η_p	Rotor-Stator $\overline{P}_4/\overline{P}_2$	Rotor-Stator η_{ad}	Rotor-Stator η_p	IGV-Rotor-Stator $\overline{P}_4/\overline{P}_1$	IGV-Rotor-Stator η_{ad}	IGV-Rotor-Stator η_p
				100% Design Equivalent Rotor Speed						
17.93	39.53	1.527	0.855	0.863	1.450	0.744	0.757	1.443	0.734	0.747
17.40	38.36	1.570	0.884	0.891	1.522	0.814	0.825	1.515	0.805	0.816
*16.74	36.90	1.592	0.890	0.897	1.540	0.821	0.832	1.531	0.809	0.820
16.27	35.88	1.597	0.875	0.883	1.545	0.809	0.820	1.538	0.800	0.812
*15.81	34.85	1.585	0.868	0.876	1.532	0.799	0.811	1.526	0.792	0.804
				85% Design Equivalent Rotor Speed						
16.25	35.81	1.401	0.933	0.936	1.353	0.831	0.838	1.348	0.820	0.827
14.38	31.70	1.420	0.919	0.923	1.383	0.847	0.854	1.380	0.839	0.846
13.57	29.91	1.415	0.884	0.889	1.384	0.826	0.833	1.380	0.818	0.826
				70% Design Equivalent Rotor Speed						
13.84	30.51	1.264	0.944	0.946	1.240	0.864	0.868	1.237	0.852	0.856
11.70	25.80	1.265	0.907	0.910	1.246	0.853	0.857	1.244	0.846	0.850
10.82	23.86	1.269	0.877	0.881	1.251	0.823	0.828	1.250	0.819	0.825

*Data taken at multiple screen positions

Table B-11. Blade Element Performance
Stage F, Rotor F - Stator F
Percent Equivalent Rotor Speed = 99.95 Equivalent Rotor Speed = 9930.6 Equivalent Weight Flow = 16.74 kg/sec
Circumferential Distortion
Streamline Position = 27 deg
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	95.90	91.90	87.00	70.90	49.60	29.01	13.71	9.20	4.50	PCT SPAN
	DIA	0.425	0.430	0.437	0.460	0.490	0.519	0.540	0.547	0.553	DIA
STATION 1	BETA 1	5.100	5.300	5.600	5.250	5.150	4.500	4.450	4.650	4.850	BETA 1
STATION 2	BETA 2	16.300	16.600	16.800	17.400	18.600	18.300	19.300	19.800	21.000	BETA 2
	V 1	124.57	128.38	131.95	135.07	132.38	130.99	126.36	122.31	118.14	V 1
	V 2	160.95	163.57	165.76	166.56	166.48	165.39	161.45	159.48	154.93	V 2
	VZ 1	124.08	127.83	131.32	134.50	131.84	130.58	125.98	121.91	117.72	VZ 1
	VZ 2	154.48	156.75	158.66	158.81	157.45	156.40	151.51	149.13	143.67	VZ 2
	V-THETA 1	11.07	11.86	12.68	12.36	11.88	10.28	9.80	9.92	9.99	V-THETA 1
	V-THETA 2	45.17	46.73	47.90	49.77	52.99	51.73	53.06	53.69	55.15	V-THETA 2
	M 1	0.3711	0.3828	0.3937	0.4033	0.3950	0.3908	0.3766	0.3642	0.3514	M 1
	M 2	0.4839	0.4922	0.4991	0.5016	0.5014	0.4979	0.4855	0.4793	0.4650	M 2
	TURN	-11.20	-11.30	-11.20	-12.14	-13.41	-13.72	-14.74	-15.02	-16.00	TURN
	PT1	9.570	9.632	9.694	9.763	9.742	9.742	9.687	9.632	9.577	PT1
	PT2	9.591	9.646	9.694	9.725	9.742	9.739	9.673	9.639	9.556	PT2
	PS1	8.702	8.706	8.712	8.728	8.749	8.769	8.784	8.789	8.793	PS1
	PS2	8.171	8.174	8.177	8.190	8.206	8.221	8.233	237	8.240	PS2
	TT1	288.167	288.167	288.167	288.167	288.167	288.167	288.167	.167	288.167	TT1
	TT2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	TT2
ROTOR F	PCT SPAN	94.99	90.01	85.01	70.01	49.99	30.01	14.99	10.01	5.01	PCT SPAN
	DIA	0.425	0.430	0.436	0.452	0.475	0.497	0.514	0.519	0.525	DIA
STATION 2	BETA 2	16.300	16.600	16.800	17.400	18.600	18.300	19.300	19.800	21.000	BETA 2
STATION 3	BETA 3	68.370	62.830	58.450	50.080	48.510	49.010	54.610	57.740	61.410	BETA 3
	BETA (RR) 2	48.685	48.490	48.528	50.019	52.028	54.348	56.381	57.103	58.289	BETA (RR) 2
	BETA (RR) 3	-26.561	-17.138	-10.733	0.227	7.872	14.207	17.730	18.991	20.682	BETA (RR) 3
	V 2	160.95	163.57	165.76	166.56	166.48	165.39	161.45	159.48	154.93	V 2
	V 3	296.59	299.09	301.02	305.81	293.79	280.95	267.38	262.66	258.07	V 3
	VZ 2	154.48	156.75	158.66	158.81	157.45	156.40	151.51	149.13	143.67	VZ 2
	VZ 3	109.21	136.40	157.35	196.18	194.50	184.02	154.59	139.96	123.31	VZ 3
	V-THETA 2	45.17	46.73	47.90	49.77	52.99	51.73	53.06	53.69	55.15	V-THETA 2
	V-THETA 3	275.40	265.75	256.43	234.47	219.92	211.77	217.61	221.74	226.26	V-THETA 3
	V(RR) 2	234.0	236.5	239.6	247.3	256.1	268.7	274.2	275.1	273.9	V(RR) 2
	V(RR) 3	122.9	143.5	160.5	196.3	196.7	190.4	163.0	148.8	132.6	V(RR) 3
	VTHETA RR2	-175.7	-177.1	-179.5	-189.4	-201.7	-218.0	-227.9	-230.5	-232.5	VTHETA RR2
	VTHETA RR3	54.6	42.1	29.8	-0.8	-26.9	-46.6	-49.4	-48.2	-46.6	VTHETA RR3
	U 2	220.92	223.83	227.41	239.17	254.73	269.77	280.94	284.23	287.66	U 2
	U 3	220.81	223.69	226.58	235.25	246.81	258.36	267.03	269.91	272.81	U 3
	M 2	0.4839	0.4922	0.4991	0.5016	0.5014	0.4979	0.4855	0.4793	0.4650	M 2
	M 3	0.8612	0.8721	0.8815	0.9040	0.8668	0.8239	0.7761	0.7590	0.7428	M 3
	M(RR) 2	0.7035	0.7117	0.7214	0.7447	0.7714	0.8091	0.8245	0.8269	0.8221	M(RR) 2
	M(RR) 3	0.3568	0.4185	0.4699	0.5804	0.5802	0.5584	0.4733	0.4300	0.3816	M(RR) 3
	TURN (RR)	75.065	65.528	59.242	49.769	44.104	40.064	38.566	38.030	37.534	TURN (RR)
	PT2	9.591	9.646	9.694	9.725	9.742	9.739	9.673	9.639	9.556	PT2
	PT3	14.017	14.341	14.645	15.451	15.334	15.072	14.631	14.479	14.348	PT3
	PS2	8.171	8.174	8.177	8.190	8.206	8.221	8.233	8.237	8.240	PS2
	PS3	8.638	8.737	8.833	9.096	9.394	9.653	9.826	9.885	9.947	PS3
	TT2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	TT2
	TT3	338.889	337.222	335.278	331.278	328.833	328.611	330.944	332.333	333.555	TT3
STATOR F	PCT SPAN	96.20	92.50	86.80	70.80	49.89	29.71	13.99	9.40	5.00	PCT SPAN
	DIA	0.423	0.426	0.431	0.446	0.466	0.485	0.500	0.504	0.508	DIA
STATION 3	BETA 3	68.370	62.830	58.450	50.080	48.510	49.010	54.610	57.740	61.410	BETA 3
STATION 4	BETA 4	4.600	5.900	7.300	8.900	7.900	8.000	8.200	8.100	8.100	BETA 4
	V 3	296.59	299.09	301.02	305.81	293.79	280.95	267.38	262.66	258.07	V 3
	V 4	218.10	223.09	230.99	249.98	251.82	245.28	242.51	242.94	243.03	V 4
	VZ 3	109.21	136.40	157.45	196.18	194.50	184.02	154.59	139.96	123.31	VZ 3
	VZ 4	217.40	221.91	229.11	246.92	249.31	242.69	239.77	240.24	240.30	VZ 4
	V-THETA 3	275.40	265.75	256.43	234.47	219.92	211.77	217.61	221.74	226.26	V-THETA 3
	V-THETA 4	17.49	22.93	29.35	38.67	34.59	34.11	34.55	34.19	34.20	V-THETA 4
	M 3	0.8612	0.8721	0.8815	0.9040	0.8668	0.8239	0.7761	0.7590	0.7428	M 3
	M 4	0.6128	0.6296	0.6558	0.7198	0.7286	0.7080	0.6965	0.6963	0.6951	M 4
	TURN (RR)	63.615	56.789	51.116	41.162	40.570	40.925	46.282	49.499	53.158	TURN (RR)
	PT3	14.017	14.341	14.645	15.451	15.334	15.072	14.631	14.479	14.348	PT3
	PT4	13.734	13.914	14.196	14.913	14.838	14.341	14.010	13.948	13.872	PT4
	PS3	8.638	8.737	8.833	9.096	9.394	9.653	9.826	9.885	9.947	PS3
	PS4	10.659	10.653	10.635	10.561	10.423	10.265	10.132	10.089	10.044	PS4
	TT3	338.889	337.222	335.278	331.278	328.833	328.611	330.944	332.333	333.555	TT3
	TT4	338.889	337.222	335.278	331.278	328.833	328.611	330.944	332.333	333.555	TT4

Table B-11. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Percent Equivalent Rotor Speed = 99.95 Equivalent Rotor Speed = 9930.6 Equivalent Weight Flow = 16.74 kg/sec
Circumferential Distortion
Streamline Position = 57 deg
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	95.90	91.90	87.00	70.90	49.60	29.01	13.71	9.20	8.50	PCT SPAN
	DIA	0.425	0.430	0.437	0.460	0.490	0.519	0.540	0.547	0.553	DIA
STATION 1	BETA 1	12.400	12.300	12.200	11.100	10.800	10.000	10.400	11.200	12.400	BETA 1
STATION 2	BETA 2	17.200	17.000	16.900	17.200	17.900	18.100	18.700	19.600	21.300	BETA 2
	V 1	134.85	137.42	138.56	141.55	140.90	137.49	131.03	127.03	122.86	V 1
	V 2	159.83	161.90	165.48	170.34	170.18	169.12	163.60	162.83	160.12	V 2
	VZ 1	131.70	134.26	135.43	138.90	138.40	135.40	128.88	124.61	120.00	VZ 1
	VZ 2	152.68	154.81	158.31	162.59	161.60	160.11	154.08	152.44	148.18	VZ 2
	V-THETA 1	28.96	29.27	29.28	27.25	26.40	23.88	23.65	24.67	26.38	V-THETA 1
	V-THETA 2	47.26	47.33	48.10	50.33	52.20	52.33	52.15	54.28	57.77	V-THETA 2
	M 1	0.4026	0.4106	0.4141	0.4234	0.4213	0.4108	0.3909	0.3786	0.3658	M 1
	M 2	0.4804	0.4869	0.4982	0.5136	0.5131	0.5097	0.4923	0.4898	0.4813	M 2
	TURN	-4.80	-4.70	-4.70	-6.09	-7.06	-8.03	-8.19	-8.27	-8.75	TURN
	PT1	9.604	9.653	9.680	9.756	9.777	9.749	9.667	9.611	9.556	PT1
	PT2	9.463	9.508	9.584	9.701	9.722	9.722	9.625	9.615	9.567	PT2
	PS1	8.590	8.595	8.603	8.625	8.653	8.680	8.700	8.706	8.712	PS1
	PS2	8.081	8.085	8.089	8.103	8.123	8.142	8.156	8.160	8.164	PS2
	TT1	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	TT1
	TT2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	TT2
ROTOR F	PCT SPAN	94.99	90.01	85.01	70.01	49.99	30.01	14.99	10.01	5.01	PCT SPAN
	DIA	0.425	0.430	0.436	0.452	0.475	0.497	0.514	0.519	0.525	DIA
STATION 2	BETA 2	17.200	17.000	16.900	17.200	17.900	18.100	18.700	19.600	21.300	BETA 2
STATION 3	BETA 3	64.520	60.350	56.440	48.400	46.530	47.530	52.520	56.400	61.850	BETA 3
	BETA (PB) 2	48.678	48.746	48.561	49.270	51.413	53.634	56.042	56.458	57.195	BETA (PB) 2
	BETA (PB) 3	-22.018	-15.024	-9.267	1.731	9.204	14.729	17.950	18.843	19.788	BETA (PB) 3
	V 2	159.83	161.90	165.48	170.34	170.18	169.12	163.60	162.83	160.12	V 2
	V 3	303.44	304.26	305.04	306.46	295.02	282.74	270.05	264.63	259.85	V 3
	VZ 2	152.68	154.81	158.31	162.59	161.60	160.11	154.08	152.44	148.18	VZ 2
	VZ 3	130.35	150.29	168.56	203.40	202.82	190.62	164.01	146.19	122.41	VZ 3
	V-THETA 2	47.26	47.33	48.10	50.33	52.20	52.33	52.15	54.28	57.77	V-THETA 2
	V-THETA 3	273.52	264.03	254.08	229.10	213.95	208.25	213.90	220.03	228.77	V-THETA 3
	V (PB) 2	231.2	234.8	239.2	249.3	259.3	270.4	276.4	276.5	274.1	V (PB) 2
	V (PB) 3	141.6	156.5	171.0	203.6	205.8	197.7	173.2	155.3	130.9	V (PB) 3
	VTHETA PB2	-173.7	-176.5	-179.3	-188.8	-202.5	-217.4	-228.8	-229.9	-229.9	VTHETA PB2
	VTHETA PB3	52.7	40.3	27.5	-6.1	-32.9	-50.1	-53.1	-49.9	-44.0	VTHETA PB3
	U 2	220.92	223.83	227.41	239.17	254.73	269.77	280.94	284.23	287.66	U 2
	U 3	220.81	223.69	226.58	235.25	246.81	258.36	267.03	269.91	272.81	U 3
	M 2	0.4804	0.4869	0.4982	0.5136	0.5131	0.5097	0.4923	0.4898	0.4813	M 2
	M 3	0.8856	0.8904	0.8960	0.9086	0.8730	0.8313	0.7861	0.7666	0.7492	M 3
	M (PB) 2	0.6950	0.7061	0.7202	0.7516	0.7819	0.8151	0.8316	0.8317	0.8240	M (PB) 2
	M (PB) 3	0.4132	0.4580	0.5023	0.6038	0.6089	0.5813	0.5042	0.4498	0.3773	M (PB) 3
	TURN (PB)	70.539	63.682	57.811	47.517	42.157	38.829	38.008	37.531	37.327	TURN (PB)
	PT2	9.463	9.508	9.584	9.701	9.722	9.722	9.625	9.615	9.567	PT2
	PT3	14.038	14.272	14.514	15.141	15.031	14.769	14.362	14.176	14.031	PT3
	PS2	8.081	8.085	8.089	8.103	8.123	8.142	8.156	8.160	8.164	PS2
	PS3	8.430	8.526	8.619	8.869	9.148	9.387	9.551	9.608	9.669	PS3
	TT2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	TT2
	TT3	337.944	336.611	334.722	329.833	327.500	327.611	329.944	331.389	332.944	TT3
STATOR F	PCT SPAN	96.20	92.50	86.80	70.80	49.89	29.71	13.99	9.40	5.00	PCT SPAN
	DIA	0.423	0.426	0.431	0.446	0.466	0.485	0.500	0.504	0.508	DIA
STATION 3	BETA 3	64.520	60.350	56.440	48.400	46.530	47.530	52.520	56.400	61.850	BETA 3
STATION 4	BETA 4	4.700	5.500	7.500	9.200	8.500	8.200	7.500	7.100	6.800	BETA 4
	V 3	303.44	304.26	305.04	306.46	295.02	282.74	270.05	264.63	259.85	V 3
	V 4	214.29	219.05	225.86	240.77	242.38	233.03	231.30	232.28	233.75	V 4
	VZ 3	130.35	150.29	168.56	203.40	202.82	190.62	164.01	146.19	122.41	VZ 3
	VZ 4	213.57	218.04	223.92	237.62	239.60	230.45	229.07	230.23	231.82	VZ 4
	V-THETA 3	273.52	264.03	254.08	229.10	213.95	208.25	213.90	220.03	228.77	V-THETA 3
	V-THETA 4	17.56	20.99	29.48	38.49	35.81	33.21	30.16	28.68	27.64	V-THETA 4
	M 3	0.8856	0.8904	0.8960	0.9086	0.8730	0.8313	0.7861	0.7666	0.7492	M 3
	M 4	0.6022	0.6179	0.6406	0.6923	0.7001	0.6705	0.6625	0.6640	0.6669	M 4
	TURN (PB)	59.644	54.701	48.904	39.182	37.990	39.244	44.888	49.155	54.898	TURN (PB)
	PT3	14.038	14.272	14.514	15.141	15.031	14.769	14.362	14.176	14.031	PT3
	PT4	13.748	13.914	14.155	14.707	14.638	14.072	13.817	13.783	13.762	PT4
	PS3	8.430	8.526	8.619	8.869	9.148	9.387	9.551	9.608	9.669	PS3
	PS4	10.760	10.755	10.740	10.675	10.552	10.411	10.293	10.254	10.213	PS4
	TT3	337.944	336.611	334.722	329.833	327.500	327.611	329.944	331.389	332.944	TT3
	TT4	337.944	336.611	334.722	329.833	327.500	327.611	329.944	331.389	332.944	TT4

Table B-11. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Percent Equivalent Rotor Speed 99.95 Equivalent Rotor Speed = 9930.6 Equivalent Weight Flow = 16.74 kg/sec
Circumferential Distortion
Streamline Position = 87 deg
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	95.90	91.90	87.00	70.90	49.60	29.01	13.71	9.20	4.50	PCT SPAN
	DIA	0.425	0.430	0.437	0.460	0.490	0.519	0.540	0.547	0.553	DIA
STATION 1	BETA 1	23.900	22.500	22.400	20.500	19.950	18.800	20.700	22.400	24.100	BETA 1
STATION 2	BETA 2	23.900	22.900	22.300	21.700	21.100	23.700	24.600	25.700	27.800	BETA 2
	V 1	147.41	149.11	155.53	159.84	159.50	158.88	153.52	152.06	147.97	V 1
	V 2	171.70	172.88	175.94	176.18	177.11	178.69	176.27	173.33	166.23	V 2
	VZ 1	134.77	137.76	143.79	149.72	149.92	150.40	143.61	140.58	135.07	VZ 1
	VZ 2	156.97	159.25	162.75	163.57	164.90	163.01	159.43	155.30	146.15	VZ 2
	V-THETA 1	59.72	57.06	59.27	55.98	54.42	51.20	54.27	57.94	60.42	V-THETA 1
	V-THETA 2	69.56	67.27	66.75	65.09	63.63	71.56	72.99	74.74	77.06	V-THETA 2
	M 1	0.4416	0.4468	0.4669	0.4804	0.4793	0.4774	0.4606	0.4560	0.4433	M 1
	M 2	0.5179	0.5217	0.5314	0.5322	0.5351	0.5402	0.5325	0.5231	0.5006	M 2
	TURN	0.00	-0.40	0.10	-1.18	-1.11	-4.81	-3.76	-3.14	-3.52	TURN
	PT1	9.398	9.432	9.556	9.660	9.680	9.694	9.611	9.591	9.522	PT1
	PT2	9.360	9.391	9.463	9.494	9.549	9.618	9.591	9.536	9.398	PT2
	PS1	8.220	8.224	8.230	8.248	8.272	8.294	8.310	8.316	8.320	PS1
	PS2	7.795	7.801	7.808	7.829	7.858	7.886	7.907	7.913	7.919	PS2
	TT1	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	TT1
	TT2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	TT2
ROTOR F	PCT SPAN	94.99	90.01	85.01	70.01	49.99	30.01	14.99	10.01	5.01	PCT SPAN
	DIA	0.425	0.430	0.436	0.452	0.475	0.497	0.514	0.519	0.525	DIA
STATION 2	BETA 2	23.900	22.900	22.300	21.700	21.100	23.700	24.600	25.700	27.800	BETA 2
STATION 3	BETA 3	68.790	63.830	58.250	46.830	46.590	52.110	57.870	61.740	66.180	BETA 3
	BETA (PR) 2	43.957	44.514	44.630	46.781	49.209	50.565	52.524	53.450	55.241	BETA (PR) 2
	BETA (PR) 3	-23.649	-14.635	-6.452	5.514	13.924	17.609	21.696	22.986	25.620	BETA (PR) 3
	V 2	171.70	172.88	175.94	176.18	177.11	178.69	176.27	173.33	166.23	V 2
	V 3	285.64	286.27	286.61	295.86	275.41	262.85	252.65	249.87	246.38	V 3
	VZ 2	156.97	159.25	162.75	163.57	164.90	163.01	159.43	155.30	146.15	VZ 2
	VZ 3	103.23	126.11	150.76	202.35	189.13	161.23	134.18	118.15	99.39	VZ 3
	V-THETA 2	69.56	67.27	66.75	65.09	63.63	71.56	72.99	74.74	77.06	V-THETA 2
	V-THETA 3	266.02	256.62	243.63	215.71	199.93	207.19	213.65	219.80	225.14	V-THETA 3
	V(PR) 2	218.1	223.3	228.7	239.0	252.7	257.1	262.7	261.4	257.0	V(PR) 2
	V(PR) 3	113.4	131.1	151.9	203.4	195.1	169.7	145.0	129.0	120.8	V(PR) 3
	VTHETA PR2	-151.4	-156.6	-160.7	-174.1	-191.1	-198.2	-208.0	-209.5	-210.6	VTHETA PR2
	VTHETA PR3	45.2	32.9	17.0	-19.5	-46.9	-51.2	-53.4	-50.1	-47.7	VTHETA PR3
	U 2	220.92	223.83	227.41	239.17	254.73	269.77	280.94	284.23	287.66	U 2
	U 3	220.81	223.69	226.58	235.25	246.81	258.36	267.03	269.91	272.81	U 3
	M 2	0.5179	0.5217	0.5314	0.5322	0.5351	0.5402	0.5325	0.5231	0.5006	M 2
	M 3	0.8349	0.8395	0.8438	0.8827	0.8166	0.7732	0.7371	0.7263	0.7131	M 3
	M(PR) 2	0.6578	0.6739	0.6908	0.7218	0.7634	0.7772	0.7934	0.7890	0.7739	M(PR) 2
	M(PR) 3	0.3316	0.3844	0.4473	0.6070	0.5786	0.4990	0.4232	0.3749	0.3208	M(PR) 3
	TURN (PR)	67.439	59.063	51.068	41.247	35.240	32.886	30.751	30.391	29.562	TURN (PR)
	PT2	9.360	9.391	9.463	9.494	9.549	9.618	9.591	9.536	9.398	PT2
	PT3	13.017	13.224	13.417	14.341	13.748	13.479	13.252	13.197	13.121	PT3
	PS2	7.795	7.801	7.808	7.829	7.858	7.886	7.907	7.913	7.919	PS2
	PS3	8.244	8.336	8.420	8.639	8.871	9.078	9.236	9.289	9.348	PS3
	TT2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	TT2
	TT3	331.889	330.167	328.000	323.111	320.833	322.000	324.111	325.555	327.222	TT3
STATOR F	PCT SPAN	96.20	92.50	86.80	70.80	49.89	29.71	13.99	9.40	5.00	PCT SPAN
	DIA	0.423	0.426	0.431	0.446	0.466	0.485	0.500	0.504	0.508	DIA
STATION 3	BETA 3	68.790	63.830	58.250	46.830	46.590	52.110	57.870	61.740	66.180	BETA 3
STATION 4	BETA 4	5.200	6.100	7.600	10.400	10.200	8.900	7.300	6.700	5.800	BETA 4
	V 3	285.64	286.27	286.61	295.86	275.41	262.85	252.65	249.87	246.38	V 3
	V 4	172.39	176.84	183.29	192.73	192.24	185.61	184.76	186.02	186.93	V 4
	VZ 3	103.23	126.11	150.76	202.35	189.13	161.23	134.18	118.15	99.39	VZ 3
	VZ 4	171.68	175.83	181.67	189.53	189.11	183.22	183.06	184.53	185.74	VZ 4
	V-THETA 3	266.02	256.62	243.63	215.71	199.93	207.19	213.65	219.80	225.14	V-THETA 3
	V-THETA 4	15.62	18.79	24.24	34.78	34.03	28.69	23.45	21.68	18.87	V-THETA 4
	M 3	0.8349	0.8395	0.8438	0.8827	0.8166	0.7732	0.7371	0.7263	0.7131	M 3
	M 4	0.4829	0.4973	0.5182	0.5508	0.5514	0.5303	0.5259	0.5285	0.5298	M 4
	TURN (PR)	63.437	57.593	50.615	36.412	36.351	43.127	50.448	54.909	60.245	TURN (PR)
	PT3	13.017	13.224	13.417	14.341	13.748	13.479	13.252	13.197	13.121	PT3
	PT4	12.879	12.997	13.169	13.424	13.348	13.059	12.935	12.928	12.907	PT4
	PS3	8.244	8.336	8.420	8.639	8.871	9.078	9.236	9.289	9.348	PS3
	PS4	10.980	10.976	10.966	10.923	10.857	10.783	10.713	10.688	10.661	PS4
	TT3	331.889	330.167	328.000	323.111	320.833	322.000	324.111	325.555	327.222	TT3
	TT4	331.889	330.167	328.000	323.111	320.833	322.000	324.111	325.555	327.222	TT4

ORIGINAL PAGE IS
OF POOR QUALITY

Table B-11. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Percent Equivalent Rotor Speed = 99.95 Equivalent Rotor Speed = 9930.6 Equivalent Weight Flow = 16.74 kg/sec
Circumferential Distortion
Streamline Position = 117 deg
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	95.90	91.90	87.00	70.90	49.60	29.01	13.71	9.20	4.50	PCT SPAN
	DIA	0.425	0.430	0.437	0.460	0.490	0.519	0.540	0.547	0.553	DIA
STATION 1	BETA 1	15.500	15.800	16.300	15.100	14.800	14.100	13.860	14.600	15.650	BETA 1
STATION 2	BETA 2	23.000	21.400	20.900	20.600	21.400	22.600	24.000	25.200	27.300	BETA 2
	V 1	95.38	99.08	102.56	101.87	102.71	100.84	102.07	101.62	97.69	V 1
	V 2	143.01	144.96	145.43	141.71	139.07	141.16	137.78	137.62	133.01	V 2
	VZ 1	91.91	95.33	98.43	98.36	99.31	97.80	99.13	98.34	94.07	VZ 1
	VZ 2	131.64	134.96	135.84	132.55	129.22	129.83	125.20	123.81	117.48	VZ 2
	V-THETA 1	25.49	26.98	28.78	26.54	26.24	24.57	24.35	25.62	26.35	V-THETA 1
	V-THETA 2	55.88	52.89	51.87	49.82	50.64	54.04	55.74	58.26	60.63	V-THETA 2
	M 1	0.2825	0.2937	0.3041	0.3021	0.3046	0.2990	0.3027	0.3013	0.2895	M 1
	M 2	0.4279	0.4339	0.4354	0.4238	0.4157	0.4221	0.4117	0.4112	0.3970	M 2
	TURN	-7.50	-5.60	-4.60	-5.48	-6.55	-8.41	-10.06	-10.85	-11.47	TURN
	PT1	8.274	8.308	8.343	8.329	8.329	8.301	8.308	8.301	8.260	PT1
	PT2	8.343	8.374	8.384	8.336	8.308	8.350	8.308	8.308	8.246	PT2
	PS1	7.828	7.826	7.824	7.818	7.810	7.802	7.797	7.795	7.793	PS1
	PS2	7.356	7.357	7.360	7.367	7.377	7.386	7.393	7.395	7.397	PS2
	TT1	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	TT1
	TT2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	TT2
ROTOR F	PCT SPAN	94.99	90.01	85.01	70.01	49.99	30.01	14.99	10.01	5.01	PCT SPAN
	DIA	0.425	0.430	0.436	0.452	0.475	0.497	0.514	0.519	0.525	DIA
STATION 2	BETA 2	23.000	21.400	20.900	20.600	21.400	22.600	24.000	25.200	27.300	BETA 2
STATION 3	BETA 3	74.070	69.790	64.530	56.520	54.250	57.340	63.540	67.430	74.460	BETA 3
	BETA (RE) 2	51.423	51.709	52.265	55.007	57.658	58.959	60.928	61.283	62.641	BETA (RE) 2
	BETA (RE) 3	-40.260	-30.208	-19.973	-5.762	2.485	6.343	8.247	9.233	11.616	BETA (RE) 3
	V 2	143.01	144.96	145.43	141.71	139.07	141.16	137.78	137.62	133.01	V 2
	V 3	303.01	303.61	303.59	302.28	295.06	286.74	278.49	274.04	267.98	V 3
	VZ 2	131.64	134.96	135.84	132.55	129.22	129.83	125.20	123.81	117.48	VZ 2
	VZ 3	83.11	104.81	130.52	166.71	172.30	154.59	123.96	105.09	71.76	VZ 3
	V-THETA 2	55.88	52.89	51.87	49.82	50.64	54.04	55.74	58.26	60.63	V-THETA 2
	V-THETA 3	291.20	284.71	274.02	252.07	239.34	241.17	249.07	252.83	258.05	V-THETA 3
	V(RE) 2	211.1	217.8	222.0	231.2	241.7	252.1	258.1	258.1	256.0	V(RE) 2
	V(RE) 3	109.4	121.8	139.0	167.7	172.7	156.0	125.9	107.1	73.7	V(RE) 3
	VTHETA RE2	-165.0	-170.9	-175.5	-189.3	-204.1	-215.7	-225.2	-226.0	-227.0	VTHETA RE2
	VTHETA RE3	70.4	61.0	47.4	16.8	-7.5	-17.2	-18.0	-17.1	-14.8	VTHETA RE3
	U 2	220.92	223.83	227.41	239.17	254.73	269.77	280.94	284.23	287.66	U 2
	U 3	220.81	223.69	226.58	235.25	246.81	258.36	267.03	269.91	272.81	U 3
	M 2	0.4279	0.4339	0.4354	0.4238	0.4157	0.4221	0.4117	0.4112	0.3970	M 2
	M 3	0.8808	0.8841	0.8860	0.8858	0.8634	0.8335	0.8028	0.7873	0.7666	M 3
	M(RE) 2	0.6316	0.6520	0.6646	0.6915	0.7225	0.7538	0.7711	0.7711	0.7642	M(RE) 2
	M(RE) 3	0.3181	0.3548	0.4058	0.4914	0.5054	0.4536	0.3629	0.3076	0.2109	M(RE) 3
	TURN (RE)	91.460	81.765	72.208	60.743	55.117	52.524	52.566	51.932	50.918	TURN (RE)
	PT2	8.343	8.374	8.384	8.336	8.308	8.350	8.308	8.308	8.246	PT2
	PT3	12.921	13.135	13.321	13.748	13.907	13.914	13.803	13.700	13.534	PT3
	PS2	7.356	7.357	7.360	7.367	7.377	7.386	7.393	7.395	7.397	PS2
	PS3	7.799	7.900	7.996	8.254	8.550	8.825	9.030	9.101	9.174	PS3
	TT2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	TT2
	TT3	340.167	339.333	338.055	335.222	333.944	335.444	338.055	338.889	339.833	TT3
STATOR F	PCT SPAN	96.20	92.50	86.80	70.80	49.89	29.71	13.99	9.40	5.00	PCT SPAN
	DIA	0.423	0.426	0.431	0.446	0.466	0.485	0.500	0.504	0.508	DIA
STATION 3	BETA 3	74.070	69.790	64.530	56.520	54.250	57.340	63.540	67.430	74.460	BETA 3
STATION 4	BETA 4	1.300	0.900	2.800	8.700	10.300	10.900	11.100	10.600	9.600	BETA 4
	V 3	303.01	303.61	303.59	302.28	295.06	286.74	278.49	274.04	267.98	V 3
	V 4	160.61	167.04	175.24	191.99	197.33	202.11	202.07	200.73	199.96	V 4
	VZ 3	83.11	104.81	130.52	166.71	172.30	154.59	123.96	105.09	71.76	VZ 3
	VZ 4	160.57	167.01	175.04	189.74	194.05	198.30	198.08	197.08	196.92	VZ 4
	V-THETA 3	291.20	284.71	274.02	252.07	239.34	241.17	249.07	252.83	258.05	V-THETA 3
	V-THETA 4	3.64	2.62	8.56	29.03	35.27	38.19	38.86	36.88	33.31	V-THETA 4
	M 3	0.8808	0.8841	0.8860	0.8858	0.8634	0.8335	0.8028	0.7873	0.7666	M 3
	M 4	0.4428	0.4619	0.4866	0.5380	0.5550	0.5680	0.5655	0.5608	0.5577	M 4
	TURN (RE)	72.650	68.778	61.700	47.803	43.913	46.364	52.336	56.724	64.772	TURN (RE)
	PT3	12.921	13.135	13.321	13.748	13.907	13.914	13.803	13.700	13.534	PT3
	PT4	12.631	12.776	12.969	13.390	13.479	13.521	13.410	13.335	13.272	PT4
	PS3	7.799	7.900	7.996	8.254	8.550	8.825	9.030	9.101	9.174	PS3
	PS4	11.040	11.038	11.030	10.996	10.934	10.863	10.795	10.771	10.746	PS4
	TT3	340.167	339.333	338.055	335.222	333.944	335.444	338.055	338.889	339.833	TT3
	TT4	340.167	339.333	338.055	335.222	333.944	335.444	338.055	338.889	339.833	TT4

Table B-11. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Percent Equivalent Rotor Speed = 99.95 Equivalent Rotor Speed = 9930.6 Equivalent Weight Flow = 16.74 kg/sec
Circumferential Distortion
Streamline Position = 147 deg
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	95.90	91.90	87.00	70.90	49.60	29.01	13.71	9.20	4.50	PCT SPAN
	DIA	0.425	0.430	0.437	0.460	0.490	0.519	0.540	0.547	0.553	DIA
STATION 1	BETA 1	6.650	7.000	7.250	4.850	4.500	4.250	4.300	4.750	5.250	BETA 1
STATION 2	BETA 2	18.400	18.200	18.200	18.800	20.300	20.300	21.300	22.500	24.500	BETA 2
	V 1	98.99	102.22	103.40	105.42	105.45	104.83	102.40	101.59	95.96	V 1
	V 2	129.91	134.64	134.53	136.72	136.28	136.33	135.56	135.45	130.35	V 2
	VZ 1	98.33	101.46	102.57	105.05	105.12	104.54	102.11	101.24	95.55	VZ 1
	VZ 2	123.27	127.89	127.78	129.33	127.55	127.36	125.61	124.39	117.85	VZ 2
	V-THETA 1	11.46	12.46	13.05	8.91	8.27	7.77	7.68	8.41	8.78	V-THETA 1
	V-THETA 2	41.01	42.05	42.01	44.03	47.18	47.11	48.97	51.53	53.71	V-THETA 2
	M 1	0.2934	0.3031	0.3067	0.3128	0.3129	0.3110	0.3037	0.3012	0.2842	M 1
	M 2	0.3875	0.4020	0.4017	0.4084	0.4071	0.4072	0.4048	0.4045	0.3888	M 2
	TURN	-11.75	-11.20	-10.95	-13.94	-15.76	-15.97	-16.88	-17.61	-19.08	TURN
	PT1	8.239	8.274	8.288	8.315	8.322	8.322	8.301	8.294	8.239	PT1
	PT2	8.174	8.239	8.239	8.274	8.274	8.281	8.274	8.274	8.205	PT2
	PS1	7.761	7.763	7.764	7.770	7.776	7.782	7.787	7.788	7.790	PS1
	PS2	7.370	7.371	7.373	7.376	7.382	7.387	7.391	7.392	7.393	PS2
	TT1	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	TT1
	TT2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	TT2
ROTOR F	PCT SPAN	94.99	90.01	85.01	70.01	49.99	30.01	14.99	10.01	5.01	PCT SPAN
	DIA	0.425	0.430	0.436	0.452	0.475	0.497	0.514	0.519	0.525	DIA
STATION 2	BETA 2	18.400	18.200	18.200	18.800	20.300	20.300	21.300	22.500	24.500	BETA 2
STATION 3	BETA 3	77.290	71.700	66.570	57.690	55.740	56.560	62.080	65.730	70.660	BETA 3
	BETA (PR) 2	55.582	54.872	55.426	56.466	58.426	60.230	61.566	61.873	63.264	BETA (PR) 2
	BETA (PR) 3	-48.663	-34.056	-23.106	-5.773	4.466	10.860	13.014	13.567	14.903	BETA (PR) 3
	V 2	129.91	134.64	134.53	136.72	136.28	136.33	135.56	135.45	130.35	V 2
	V 3	304.52	303.62	303.02	297.41	283.68	275.07	269.54	267.29	264.62	V 3
	VZ 2	123.27	127.89	127.78	129.33	127.55	127.36	125.61	124.39	117.85	VZ 2
	VZ 3	66.97	95.28	120.47	158.94	159.62	151.43	126.07	109.76	87.57	VZ 3
	V-THETA 2	41.01	42.05	42.01	44.03	47.18	47.11	48.97	51.53	53.71	V-THETA 2
	V-THETA 3	296.95	288.09	277.98	251.31	234.35	229.31	237.90	243.43	249.50	V-THETA 3
	V (PR) 2	218.1	222.3	225.2	234.2	243.8	256.8	264.2	264.3	262.4	V (PR) 2
	V (PR) 3	101.8	115.5	131.1	159.9	160.4	154.7	130.0	113.5	91.2	V (PR) 3
	VTHETA PR2	-179.9	-181.8	-185.4	-195.1	-207.5	-222.7	-232.0	-232.7	-234.0	VTHETA PR2
	VTHETA PR3	76.1	64.4	51.4	16.1	-12.5	-29.1	-29.1	-26.5	-23.3	VTHETA PR3
	U 2	220.92	223.83	227.41	239.17	254.73	269.77	280.94	284.23	287.66	U 2
	U 3	220.81	223.69	226.58	235.25	246.81	258.36	267.03	269.91	272.81	U 3
	M 2	0.3875	0.4020	0.4017	0.4084	0.4071	0.4072	0.4048	0.4045	0.3888	M 2
	M 3	0.8796	0.9787	0.8795	0.8674	0.8258	0.7966	0.7749	0.7660	0.7557	M 3
	M (PR) 2	0.6504	0.6636	0.6723	0.6995	0.7281	0.7670	0.7889	0.7892	0.7826	M (PR) 2
	M (PR) 3	0.2939	0.3342	0.3806	0.4662	0.4668	0.4480	0.3738	0.3254	0.2604	M (PR) 3
	TURN (PR)	104.020	88.765	78.499	62.214	53.907	49.295	48.462	48.214	48.277	TURN (PR)
	PT2	8.174	8.239	8.239	8.274	8.274	8.281	8.274	8.274	8.205	PT2
	PT3	12.997	13.162	13.335	13.597	13.479	13.479	13.472	13.452	13.417	PT3
	PS2	7.370	7.371	7.373	7.376	7.382	7.387	7.391	7.392	7.393	PS2
	PS3	7.855	7.962	8.060	8.324	8.616	8.872	9.058	9.123	9.189	PS3
	TT2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	TT2
	TT3	344.444	342.944	341.111	336.555	333.722	334.333	337.222	338.555	340.000	TT3
STATOR F	PCT SPAN	96.20	92.50	86.80	70.80	49.89	29.71	13.99	9.40	5.00	PCT SPAN
	DIA	0.423	0.426	0.431	0.446	0.466	0.485	0.500	0.504	0.508	DIA
STATION 3	BETA 3	77.290	71.700	66.570	57.690	55.740	56.560	62.080	65.730	70.660	BETA 3
STATION 4	BETA 4	4.600	4.500	3.900	6.600	8.700	9.400	10.200	9.400	8.700	BETA 4
	V 3	304.52	303.62	303.02	297.41	283.68	275.07	269.54	267.29	264.62	V 3
	V 4	167.36	170.82	175.26	183.78	185.40	193.13	197.03	198.58	199.50	V 4
	VZ 3	66.97	95.28	120.47	158.94	159.62	151.43	126.07	109.76	87.57	VZ 3
	VZ 4	166.82	170.29	174.85	182.52	183.17	190.38	193.71	195.69	196.98	VZ 4
	V-THETA 3	296.95	288.09	277.98	251.31	234.35	229.31	237.90	243.43	249.50	V-THETA 3
	V-THETA 4	13.42	13.40	11.92	21.12	28.03	31.52	34.85	32.40	30.14	V-THETA 4
	M 3	0.8796	0.8787	0.8795	0.8674	0.8258	0.7966	0.7749	0.7660	0.7557	M 3
	M 4	0.4592	0.4702	0.4844	0.5127	0.5198	0.5422	0.5513	0.5547	0.5562	M 4
	TURN (PR)	72.593	67.097	62.642	51.073	47.003	47.082	51.771	56.216	61.851	TURN (PR)
	PT3	12.997	13.162	13.335	13.597	13.479	13.479	13.472	13.452	13.417	PT3
	PT4	12.742	12.824	12.928	13.121	13.100	13.210	13.204	13.204	13.183	PT4
	PS3	7.855	7.962	8.060	8.324	8.616	8.872	9.058	9.123	9.189	PS3
	PS4	11.026	11.022	11.011	10.967	10.897	10.817	10.740	10.713	10.685	PS4
	TT3	344.444	342.944	341.111	336.555	333.722	334.333	337.222	338.555	340.000	TT3
	TT4	344.444	342.944	341.111	336.555	333.722	334.333	337.222	338.555	340.000	TT4

ORIGINAL PAGE IS
OF POOR QUALITY

Table B-11. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Percent Equivalent Rotor Speed = 99.95 Equivalent Rotor Speed = 9930.6 Equivalent Weight Flow = 16.74 kg/sec
Circumferential Distortion
Streamline Position = 177 deg
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	95.90	91.90	87.00	70.90	49.60	29.01	13.71	9.20	4.50	PCT SPAN
	DIA	0.425	0.430	0.437	0.460	0.490	0.519	0.540	0.547	0.553	DIA
STATION 1	BETA 1	-3.340	-3.130	-2.870	-2.420	-2.300	-1.950	-1.600	-1.800	-2.000	BETA 1
STATION 2	BETA 2	13.800	13.100	13.000	13.300	15.600	15.500	16.200	18.000	20.000	BETA 2
	V 1	94.73	97.42	102.57	103.12	103.52	105.83	101.91	101.03	95.99	V 1
	V 2	126.93	131.26	132.68	134.40	134.21	133.76	134.23	133.62	128.44	V 2
	VZ 1	94.57	97.28	102.44	103.02	103.43	105.77	101.87	100.98	95.93	VZ 1
	VZ 2	123.26	127.84	129.25	130.69	128.98	128.37	128.15	126.28	119.87	VZ 2
	V-THETA 1	-5.52	-5.32	-5.14	-4.35	-4.15	-3.60	-2.85	-3.17	-3.35	V-THETA 1
	V-THETA 2	30.28	29.75	29.84	30.89	36.01	35.60	37.23	41.03	43.63	V-THETA 2
	M 1	0.2805	0.2887	0.3042	0.3058	0.3071	0.3141	0.3022	0.2995	0.2844	M 1
	M 2	0.3783	0.3916	0.3959	0.4013	0.4007	0.3993	0.4007	0.3989	0.3829	M 2
	TURN	-17.14	-16.23	-15.87	-15.71	-17.87	-17.38	-17.70	-19.68	-21.86	TURN
	PT1	8.191	8.219	8.274	8.288	8.301	8.336	8.301	8.294	8.246	PT1
	PT2	8.167	8.225	8.246	8.274	8.277	8.277	8.288	8.281	8.212	PT2
	PS1	7.755	7.757	7.759	7.767	7.776	7.785	7.792	7.794	7.796	PS1
	PS2	7.399	7.400	7.402	7.405	7.411	7.416	7.420	7.421	7.422	PS2
	TT1	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	TT1
	TT2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	TT2
ROTOR F	PCT SPAN	94.99	90.01	85.01	70.01	49.99	30.01	14.99	10.01	5.01	PCT SPAN
	DIA	0.425	0.430	0.436	0.452	0.475	0.497	0.514	0.519	0.525	DIA
STATION 2	BETA 2	13.800	13.100	13.000	13.300	15.600	15.500	16.200	18.000	20.000	BETA 2
STATION 3	BETA 3	74.740	70.380	65.130	54.520	52.020	53.040	57.690	61.270	64.810	BETA 3
	BETA (PR) 2	57.114	56.629	56.807	57.891	59.471	61.269	62.264	62.560	63.839	BETA (PR) 2
	BETA (PR) 3	-39.813	-28.700	-18.630	-3.118	5.862	12.442	13.878	13.492	14.096	BETA (PR) 3
	V 2	126.93	131.26	132.68	134.40	134.21	133.76	134.23	133.62	128.44	V 2
	V 3	296.41	295.27	296.07	300.62	290.06	277.62	273.65	272.40	269.96	V 3
	VZ 2	123.26	127.84	129.25	130.69	128.98	128.37	128.15	126.28	119.87	VZ 2
	VZ 3	77.97	99.08	124.48	174.45	178.40	166.72	146.06	130.76	114.76	VZ 3
	V-THETA 2	30.28	29.75	29.84	30.89	36.01	35.60	37.23	41.03	43.63	V-THETA 2
	V-THETA 3	285.80	277.93	268.55	244.75	228.50	221.57	230.95	238.54	243.99	V-THETA 3
	V (PR) 2	227.0	232.4	236.1	245.9	254.1	267.3	275.7	274.4	272.3	V (PR) 2
	V (PR) 3	102.0	113.5	131.5	174.8	179.6	171.3	151.2	135.2	119.1	V (PR) 3
	VTHETA PR2	-190.6	-194.1	-197.6	-208.3	-218.7	-234.2	-243.7	-243.2	-244.0	VTHETA PR2
	VTHETA PR3	65.0	54.2	42.0	9.5	-18.3	-36.8	-36.1	-31.4	-28.8	VTHETA PR3
	U 2	220.92	223.83	227.41	239.17	254.73	269.77	280.94	284.23	287.66	U 2
	U 3	220.81	223.69	226.58	235.25	246.81	258.36	267.03	269.91	272.81	U 3
	M 2	0.3783	0.3916	0.3959	0.4013	0.4007	0.3993	0.4007	0.3989	0.3829	M 2
	M 3	0.8525	0.8504	0.8552	0.8758	0.8447	0.8033	0.7860	0.7800	0.7702	M 3
	M (PR) 2	0.6766	0.6934	0.7046	0.7343	0.7585	0.7980	0.8232	0.8192	0.8118	M (PR) 2
	M (PR) 3	0.2933	0.3268	0.3799	0.5093	0.5231	0.4956	0.4342	0.3872	0.3397	M (PR) 3
	TURN (PR)	96.704	85.182	75.409	60.985	53.560	48.759	48.303	48.979	49.657	TURN (PR)
	PT2	8.167	8.225	8.246	8.274	8.277	8.277	8.288	8.281	8.212	PT2
	PT3	12.824	12.955	13.169	13.872	13.879	13.686	13.721	13.734	13.700	PT3
	PS2	7.399	7.400	7.402	7.405	7.411	7.416	7.420	7.421	7.422	PS2
	PS3	7.975	8.075	8.167	8.418	8.701	8.949	9.126	9.189	9.254	PS3
	TT2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	TT2
	TT3	344.555	343.389	341.889	338.167	335.278	335.555	338.889	340.389	342.000	TT3
STATOR F	PCT SPAN	96.20	92.50	86.80	70.80	49.89	29.71	13.99	9.40	5.00	PCT SPAN
	DIA	0.423	0.426	0.431	0.446	0.466	0.485	0.500	0.504	0.508	DIA
STATION 3	BETA 3	74.740	70.380	65.130	54.520	52.020	53.040	57.690	61.270	64.810	BETA 3
STATION 4	BETA 4	-0.000	-2.600	-3.400	4.000	7.800	9.700	8.900	8.400	7.200	BETA 4
	V 3	296.41	295.27	296.07	300.62	290.06	277.62	273.65	272.40	269.96	V 3
	V 4	163.88	169.31	176.45	190.69	191.78	197.47	204.05	206.48	207.65	V 4
	VZ 3	77.97	99.08	124.48	174.45	178.40	166.72	146.06	130.76	114.76	VZ 3
	VZ 4	163.88	169.13	176.13	190.19	189.91	194.48	201.37	204.02	205.76	VZ 4
	V-THETA 3	285.80	277.93	268.55	244.75	228.50	221.57	230.95	238.54	243.99	V-THETA 3
	V-THETA 4	-0.00	-7.68	-10.46	13.30	26.01	33.24	31.53	30.13	25.99	V-THETA 4
	M 3	0.8525	0.8504	0.8552	0.8758	0.8447	0.8033	0.7860	0.7800	0.7702	M 3
	M 4	0.4492	0.4655	0.4872	0.5317	0.5374	0.5540	0.5706	0.5765	0.5786	M 4
	TURN (PR)	74.625	72.670	68.500	50.502	44.181	43.259	48.669	52.740	57.471	TURN (PR)
	PT3	12.824	12.955	13.169	13.872	13.879	13.686	13.721	13.734	13.700	PT3
	PT4	12.700	12.824	12.990	13.328	13.279	13.328	13.383	13.403	13.383	PT4
	PS3	7.975	8.075	8.167	8.418	8.701	8.949	9.126	9.189	9.254	PS3
	PS4	11.058	11.054	11.043	10.994	10.910	10.819	10.731	10.700	10.667	PS4
	TT3	344.555	343.389	341.889	338.167	335.278	335.555	338.889	340.389	342.000	TT3
	TT4	344.555	343.389	341.889	338.167	335.278	335.555	338.889	340.389	342.000	TT4

Table B-11. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Percent Equivalent Rotor Speed = 99.95 Equivalent Rotor Speed = 9930.6 Equivalent Weight Flow = 16.74 kg/sec
Circumferential Distortion
Streamline Position = 207 deg
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	95.90	91.90	87.00	70.90	49.60	29.01	13.71	9.20	4.50	PCT SPAN
	DIA	0.425	0.430	0.437	0.460	0.490	0.519	0.540	0.547	0.553	DIA
STATION 1	BETA 1	-11.300	-10.200	-9.250	-7.350	-7.500	-7.800	-6.900	-6.950	-7.400	BETA 1
STATION 2	BETA 2	7.600	8.100	8.700	8.900	9.400	9.400	10.000	10.000	10.700	BETA 2
	V 1	97.49	97.12	98.76	101.31	101.32	100.88	98.85	97.03	95.89	V 1
	V 2	111.24	116.56	121.94	122.43	124.48	126.02	129.34	127.80	121.58	V 2
	VZ 1	95.60	95.58	97.47	100.48	100.46	99.95	98.13	96.32	95.09	VZ 1
	VZ 2	110.26	115.39	120.52	120.86	122.53	123.79	126.59	125.00	118.57	VZ 2
	V-THETA 1	-19.10	-17.20	-15.87	-12.96	-13.23	-13.69	-11.88	-11.74	-12.35	V-THETA 1
	V-THETA 2	14.71	16.42	18.48	18.93	20.28	20.49	22.32	22.04	22.40	V-THETA 2
	M 1	0.2889	0.2877	0.2927	0.3004	0.3004	0.2991	0.2930	0.2875	0.2840	M 1
	M 2	0.3304	0.3466	0.3630	0.3645	0.3708	0.3755	0.3857	0.3810	0.3619	M 2
	TURN	-18.90	-18.30	-17.95	-16.24	-16.88	-17.16	-16.84	-16.88	-18.02	TURN
	PT1	8.232	8.232	8.253	8.294	8.315	8.329	8.322	8.308	8.301	PT1
	PT2	8.143	8.205	8.270	8.277	8.305	8.325	8.370	8.350	8.270	PT2
	PS1	7.769	7.773	7.777	7.791	7.810	7.828	7.841	7.845	7.849	PS1
	PS2	7.550	7.551	7.551	7.551	7.553	7.553	7.554	7.554	7.555	PS2
	TT1	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	TT1
	TT2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	TT2
ROTOR F	PCT SPAN	94.99	90.01	85.01	70.01	49.99	30.01	14.99	10.01	5.01	PCT SPAN
	DIA	0.425	0.430	0.436	0.452	0.475	0.497	0.514	0.519	0.525	DIA
STATION 2	BETA 2	7.600	8.100	8.700	8.900	9.400	9.400	10.000	10.000	10.700	BETA 2
STATION 3	BETA 3	64.710	62.240	59.360	50.640	47.050	47.170	51.870	53.420	55.580	BETA 3
	BETA (PR) 2	61.866	60.912	60.027	61.244	62.406	63.590	63.918	64.510	65.915	BETA (PR) 2
	BETA (PR) 3	-22.123	-17.360	-12.513	-0.754	8.438	14.202	15.395	16.009	16.660	BETA (PR) 3
	V 2	111.24	116.56	121.94	122.43	124.48	126.02	129.34	127.80	121.58	V 2
	V 3	302.72	302.97	303.32	307.66	296.50	285.78	279.68	277.69	275.03	V 3
	VZ 2	110.26	115.39	120.52	120.86	122.53	123.79	126.59	125.00	118.57	VZ 2
	VZ 3	129.13	140.93	154.53	195.06	201.88	193.99	172.35	165.15	155.13	VZ 3
	V-THETA 2	14.71	16.42	18.48	18.93	20.28	20.49	22.32	22.04	22.40	V-THETA 2
	V-THETA 3	273.31	267.74	260.88	237.81	216.87	209.27	219.58	222.53	226.39	V-THETA 3
	V(PR) 2	233.8	237.4	241.2	251.3	264.7	278.6	288.3	290.8	290.9	V(PR) 2
	V(PR) 3	140.3	148.5	158.5	195.2	204.4	200.7	179.6	172.7	162.9	V(PR) 3
	VTHETA PR2	-206.2	-207.8	-209.0	-220.2	-234.4	-249.3	-258.6	-262.2	-265.3	VTHETA PR2
	VTHETA PR3	52.5	44.1	34.3	2.6	-29.9	-49.1	-47.5	-47.4	-48.4	VTHETA PR3
	U 2	220.92	223.83	227.41	239.17	254.73	269.77	280.94	284.23	287.66	U 2
	U 3	220.81	223.69	226.58	235.25	246.81	258.36	267.03	269.91	272.81	U 3
	M 2	0.3304	0.3466	0.3630	0.3645	0.3708	0.3755	0.3857	0.3810	0.3619	M 2
	M 3	0.8725	0.8747	0.8777	0.8981	0.8648	0.8291	0.8038	0.7955	0.7850	M 3
	M(PR) 2	0.6946	0.7058	0.7182	0.7481	0.7884	0.8301	0.8597	0.8670	0.8661	M(PR) 2
	M(PR) 3	0.4045	0.4286	0.4587	0.5699	0.5961	0.5823	0.5162	0.4948	0.4650	M(PR) 3
	TURN (PR)	83.832	78.171	72.519	61.977	53.926	49.332	48.452	48.433	49.195	TURN (PR)
	PT2	8.143	8.205	8.270	8.277	8.305	8.325	8.370	8.350	8.270	PT2
	PT3	12.997	13.176	13.362	14.058	13.996	13.838	13.734	13.707	13.652	PT3
	PS2	7.550	7.551	7.551	7.551	7.553	7.553	7.554	7.554	7.555	PS2
	PS3	7.915	8.005	8.092	8.329	8.593	8.816	8.976	9.032	9.089	PS3
	TT2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	TT2
	TT3	345.167	344.222	342.944	339.111	336.278	336.278	340.222	341.611	343.111	TT3
STATOR F	PCT SPAN	96.20	92.50	86.80	70.80	49.89	29.71	13.99	9.40	5.00	PCT SPAN
	DIA	0.423	0.426	0.431	0.446	0.466	0.485	0.500	0.504	0.508	DIA
STATION 3	BETA 3	64.710	62.240	59.360	50.640	47.050	47.170	51.870	53.420	55.580	BETA 3
STATION 4	BETA 4	-2.100	-3.600	-5.300	2.100	6.100	7.400	6.500	5.600	4.700	BETA 4
	V 3	302.72	302.97	303.32	307.66	296.50	285.78	279.68	277.69	275.03	V 3
	V 4	170.35	174.89	181.08	193.02	196.55	198.54	206.11	208.31	209.28	V 4
	VZ 3	129.13	140.93	154.53	195.06	201.88	193.99	172.35	165.15	155.13	VZ 3
	VZ 4	170.23	174.54	180.29	192.85	195.34	196.73	204.56	207.07	208.32	VZ 4
	V-THETA 3	273.31	267.74	260.88	237.81	216.87	209.27	219.58	222.53	226.39	V-THETA 3
	V-THETA 4	-6.24	-10.98	-16.73	7.07	20.88	25.55	23.31	20.30	17.13	V-THETA 4
	M 3	0.8725	0.8747	0.8777	0.8981	0.8648	0.8291	0.8038	0.7955	0.7850	M 3
	M 4	0.4673	0.4810	0.4928	0.5378	0.5507	0.5566	0.5756	0.5809	0.5824	M 4
	TURN (PR)	66.635	65.697	64.626	48.521	40.909	39.683	45.237	47.667	50.707	TURN (PR)
	PT3	12.997	13.176	13.362	14.058	13.996	13.838	13.734	13.707	13.652	PT3
	PT4	12.783	12.893	13.045	13.341	13.362	13.300	13.376	13.390	13.362	PT4
	PS3	7.915	8.005	8.092	8.329	8.593	8.816	8.976	9.032	9.089	PS3
	PS4	11.007	11.006	10.999	10.958	10.874	10.777	10.686	10.654	10.619	PS4
	TT3	345.167	344.222	342.944	339.111	336.278	336.278	340.222	341.611	343.111	TT3
	TT4	345.167	344.222	342.944	339.111	336.278	336.278	340.222	341.611	343.111	TT4

Table B-11. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Percent Equivalent Rotor Speed = 99.95 Equivalent Rotor Speed = 9930.6 Equivalent Weight Flow = 16.74 kg/sec
Circumferential Distortion
Streamline Position = 237 deg
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	95.90	91.90	87.00	70.90	49.60	29.01	13.71	9.20	4.50	PCT SPAN
	DIA	0.425	0.430	0.437	0.460	0.490	0.519	0.540	0.547	0.553	DIA
STATION 1	BETA 1	-16.400	-15.100	-13.900	-12.500	-12.100	-11.800	-10.700	-11.000	-11.800	BETA 1
STATION 2	BETA 2	4.700	5.400	5.900	7.500	7.800	8.300	8.900	9.000	10.100	BETA 2
	V 1	86.63	90.14	91.90	91.39	91.97	95.47	98.49	96.08	93.68	V 1
	V 2	110.02	113.03	113.92	115.38	115.38	116.53	122.35	120.45	115.95	V 2
	VZ 1	83.10	87.03	89.21	89.23	89.93	93.45	96.78	94.32	91.70	VZ 1
	VZ 2	109.65	112.52	113.29	114.30	114.05	114.81	120.13	118.16	113.30	VZ 2
	V-THETA 1	-24.46	-23.48	-22.08	-19.78	-19.28	-19.52	-18.29	-18.33	-19.16	V-THETA 1
	V-THETA 2	9.01	10.64	11.71	15.05	15.62	16.75	18.81	18.71	20.18	V-THETA 2
	M 1	0.2562	0.2668	0.2720	0.2705	0.2723	0.2828	0.2919	0.2846	0.2774	M 1
	M 2	0.3267	0.3359	0.3386	0.3430	0.3430	0.3465	0.3643	0.3585	0.3448	M 2
	TURN	-21.10	-20.50	-19.80	-19.99	-19.88	-20.06	-19.54	-19.94	-21.82	TURN
	PT1	8.281	8.315	8.336	8.343	8.363	8.412	8.453	8.432	8.412	PT1
	PT2	8.281	8.315	8.325	8.343	8.343	8.356	8.429	8.405	8.350	PT2
	PS1	7.911	7.914	7.918	7.929	7.944	7.957	7.968	7.971	7.974	PS1
	PS2	7.690	7.690	7.690	7.690	7.690	7.690	7.690	7.690	7.690	PS2
	TT1	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	TT1
	TT2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	TT2
ROTOR F	PCT SPAN	98.99	90.01	85.01	70.01	49.99	30.01	14.99	10.01	5.01	PCT SPAN
	DIA	0.425	0.430	0.436	0.452	0.475	0.497	0.514	0.519	0.525	DIA
STATION 2	BETA 2	4.700	5.400	5.900	7.500	7.800	8.300	8.900	9.000	10.100	BETA 2
STATION 3	BETA 3	67.310	63.640	60.020	52.240	48.390	47.990	52.680	54.320	56.370	BETA 3
	BETA (PR) 2	62.641	62.176	62.290	62.979	64.500	65.594	65.379	66.011	67.043	BETA (PR) 2
	BETA (PR) 3	-22.020	-15.219	-9.586	1.242	10.706	15.825	17.326	17.840	18.296	BETA (PR) 3
	V 2	110.02	113.03	113.92	115.38	115.38	116.53	122.35	120.45	115.95	V 2
	V 3	288.38	288.89	289.92	292.72	282.84	277.40	271.77	270.45	269.13	V 3
	VZ 2	109.65	112.52	113.29	114.30	114.05	114.81	120.13	118.16	113.30	VZ 2
	VZ 3	111.11	128.12	144.82	179.20	187.69	185.38	164.46	157.43	148.75	VZ 3
	V-THETA 2	9.01	10.64	11.71	15.05	15.62	16.75	18.81	18.71	20.18	V-THETA 2
	V-THETA 3	265.75	258.54	251.04	231.36	211.33	205.81	215.73	219.25	223.63	V-THETA 3
	V (PR) 2	238.6	241.1	243.7	251.6	265.0	278.1	288.7	291.0	290.8	V (PR) 2
	V (PR) 3	120.7	133.5	147.1	179.4	191.3	193.3	173.1	166.3	157.6	V (PR) 3
	VTHETA PR2	-211.9	-213.2	-215.7	-224.1	-239.1	-253.0	-262.1	-265.5	-267.5	VTHETA PR2
	VTHETA PR3	44.9	34.9	24.5	-3.9	-35.5	-52.5	-51.3	-50.7	-49.2	VTHETA PR3
	U 2	220.92	223.83	227.41	239.17	254.73	269.77	280.94	284.23	287.16	U 2
	U 3	220.81	223.69	226.58	235.25	246.81	258.36	267.03	269.91	272.81	U 3
	M 2	0.3267	0.3359	0.3386	0.3430	0.3430	0.3465	0.3643	0.3585	0.3448	M 2
	M 3	0.8261	0.8293	0.8345	0.8486	0.8197	0.8015	0.7783	0.7722	0.7662	M 3
	M (PR) 2	0.7086	0.7164	0.7242	0.7481	0.7879	0.8269	0.8595	0.8659	0.8648	M (PR) 2
	M (PR) 3	0.3457	0.3833	0.4233	0.5200	0.5584	0.5584	0.4957	0.4747	0.4487	M (PR) 3
	TURN (PR)	84.504	77.306	71.860	61.719	53.758	49.722	47.996	48.118	48.702	TURN (PR)
	PT2	8.281	8.315	8.325	8.343	8.343	8.356	8.429	8.405	8.350	PT2
	PT3	12.831	13.010	13.210	13.762	13.755	13.838	13.762	13.762	13.769	PT3
	PS2	7.690	7.690	7.690	7.690	7.690	7.690	7.690	7.690	7.690	PS2
	PS3	8.199	8.287	8.370	8.594	8.847	9.065	9.223	9.278	9.336	PS3
	TT2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	TT2
	TT3	344.611	343.500	342.167	338.778	336.111	336.389	340.167	341.667	343.055	TT3
STATOR F	PCT SPAN	96.20	92.50	86.80	70.80	49.89	29.71	13.99	9.40	5.00	PCT SPAN
	DIA	0.423	0.426	0.431	0.446	0.466	0.485	0.500	0.504	0.508	DIA
STATION 3	BETA 3	67.310	63.640	60.020	52.240	48.390	47.990	52.680	54.320	56.370	BETA 3
STATION 4	BETA 4	1.300	-0.400	-4.200	4.000	7.700	8.200	7.700	8.100	7.700	BETA 4
	V 3	288.38	288.89	289.92	292.72	282.84	277.40	271.77	270.45	269.13	V 3
	V 4	166.38	172.31	179.27	195.49	201.75	202.77	213.06	216.05	218.01	V 4
	VZ 3	111.11	128.12	144.82	179.20	187.69	185.38	164.46	157.43	148.75	VZ 3
	VZ 4	166.34	172.30	178.78	194.97	199.83	200.53	210.91	213.64	215.77	VZ 4
	V-THETA 3	265.75	258.54	251.04	231.36	211.33	205.81	215.73	219.25	223.63	V-THETA 3
	V-THETA 4	3.77	-1.20	-13.13	13.63	27.02	28.90	28.52	30.41	29.17	V-THETA 4
	M 3	0.8261	0.8293	0.8345	0.8486	0.8197	0.8015	0.7783	0.7722	0.7662	M 3
	M 4	0.4563	0.4741	0.4952	0.5454	0.5663	0.5691	0.5964	0.6039	0.6085	M 4
	TURN (PR)	65.849	63.902	64.186	48.221	40.650	39.704	44.849	46.072	48.502	TURN (PR)
	PT3	12.831	13.010	13.210	13.762	13.755	13.838	13.762	13.762	13.769	PT3
	PT4	12.590	12.728	12.893	13.293	13.390	13.286	13.438	13.472	13.472	PT4
	PS3	8.199	8.287	8.370	8.594	8.847	9.065	9.223	9.278	9.336	PS3
	PS4	10.915	10.912	10.904	10.859	10.772	10.666	10.565	10.530	10.492	PS4
	TT3	344.611	343.500	342.167	338.778	336.111	336.389	340.167	341.667	343.055	TT3
	TT4	344.611	343.500	342.167	338.778	336.111	336.389	340.167	341.667	343.055	TT4

Table B-11. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Percent Equivalent Rotor Speed = 99.95 Equivalent Rotor Speed = 9930.6 Equivalent Weight Flow = 16.74 kg/sec
Circumferential Distortion
Streamline Position = 267 deg
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	95.90	91.90	87.00	70.90	49.60	29.01	13.71	9.20	4.50	PCT SPAN
	DIA	0.425	0.430	0.437	0.460	0.490	0.519	0.540	0.547	0.553	DIA
STATION 1	BETA 1	-25.300	-24.800	-23.500	-21.350	-20.400	-20.350	-20.400	-21.500	-23.900	BETA 1
STATION 2	BETA 2	3.600	3.300	3.600	4.600	5.100	5.900	6.200	6.400	7.200	BETA 2
	V 1	106.07	111.57	124.02	118.13	114.23	128.24	112.08	117.07	106.39	V 1
	V 2	100.81	99.17	107.80	105.91	113.07	113.58	128.87	128.16	126.94	V 2
	VZ 1	95.90	101.28	113.73	110.02	107.06	120.23	105.05	108.92	97.27	VZ 1
	VZ 2	100.61	99.00	107.56	105.48	112.36	112.48	127.31	126.48	124.98	VZ 2
	V-THETA 1	-45.33	-46.80	-49.45	-43.01	-39.82	-44.59	-39.07	-42.91	-43.11	V-THETA 1
	V-THETA 2	6.33	5.71	6.77	8.49	10.03	11.62	13.83	14.19	15.79	V-THETA 2
	M 1	0.3148	0.3314	0.3694	0.3514	0.3395	0.3823	0.3330	0.3482	0.3158	M 1
	M 2	0.2989	0.2939	0.3200	0.3143	0.3360	0.3375	0.3843	0.3821	0.3783	M 2
	TURN	-28.90	-28.10	-27.10	-25.95	-25.49	-26.22	-26.56	-27.86	-31.05	TURN
	PT1	8.591	8.660	8.825	8.770	8.750	8.963	8.770	8.839	8.715	PT1
	PT2	8.467	8.446	8.536	8.501	8.567	8.[illegible]6	8.743	8.729	8.708	PT2
	PS1	8.021	8.026	8.032	8.052	8.079	8.103	8.122	8.128	8.133	PS1
	PS2	7.958	7.955	7.951	7.939	7.923	7.908	7.896	7.893	7.889	PS2
	TT1	288.167	288.167	288.167	288.167	288.16	288.167	288.167	288.167	288.167	TT1
	TT2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	TT2
ROTOR F	PCT SPAN	98.99	90.01	85.01	70.01	49.99	30.01	14.99	10.01	5.01	PCT SPAN
	DIA	0.425	0.430	0.436	0.452	0.475	0.497	0.514	0.519	0.525	DIA
STATION 2	BETA 2	3.600	3.300	3.600	4.600	5.100	5.900	6.200	6.400	7.200	BETA 2
STATION 3	BETA 3	62.490	58.260	53.980	45.400	41.640	42.230	45.220	46.830	49.110	BETA 3
	BETA (PR) 2	64.880	65.588	64.011	65.427	65.336	66.456	64.516	64.903	65.312	BETA(PR) 2
	BETA (PR) 3	-22.703	-15.651	-9.490	2.122	10.837	15.499	16.427	16.345	15.915	BETA(PR) 3
	V 2	100.81	99.17	107.80	105.91	113.07	113.58	128.87	128.16	126.94	V 2
	V 3	318.86	318.70	319.05	318.85	305.91	294.97	291.78	291.03	290.25	V 3
	VZ 2	100.61	99.00	107.56	105.48	112.36	112.48	127.31	126.48	124.98	VZ 2
	VZ 3	147.03	167.38	187.53	223.81	228.42	218.02	205.01	198.57	189.45	VZ 3
	V-THETA 2	6.33	5.71	6.77	8.49	10.03	11.62	13.83	14.19	15.79	V-THETA 2
	V-THETA 3	282.32	270.58	257.93	226.95	203.09	197.90	206.59	211.68	218.79	V-THETA 3
	V(PR) 2	237.0	239.5	245.5	253.7	269.4	281.8	296.3	298.6	299.6	V(PR) 2
	V(PR) 3	160.5	174.8	190.4	224.1	232.9	226.9	214.7	208.0	198.2	V(PR) 3
	VTHETA PR2	-214.6	-218.1	-220.6	-230.7	-244.7	-258.1	-267.1	-270.0	-271.9	VTHETA PR2
	VTHETA PR3	61.5	46.9	31.3	-8.3	-43.7	-60.5	-60.4	-58.2	-54.0	VTHETA PR3
	U 2	220.92	223.83	227.41	239.17	254.73	269.77	280.94	284.23	287.66	U 2
	U 3	220.81	223.69	226.58	235.25	246.81	258.36	267.03	269.91	272.81	U 3
	M 2	0.2989	0.2939	0.3200	0.3143	0.3360	0.3375	0.3843	0.3821	0.3783	M 2
	M 3	0.9211	0.9233	0.9283	0.9364	0.8980	0.8605	0.8450	0.8400	0.8346	M 3
	M(PR) 2	0.7027	0.7100	0.7287	0.7528	0.8005	0.8374	0.8833	0.8901	0.8930	M(PR) 2
	M(PR) 3	0.4635	0.5064	0.5539	0.6582	0.6837	0.6620	0.6218	0.6004	0.5700	M(PR) 3
	TURN (PR)	87.422	81.148	73.484	63.288	54.465	50.911	48.025	48.492	49.329	TURN(PR)
	PT2	8.467	8.446	8.536	8.501	8.567	8.556	8.743	8.729	8.708	PT2
	PT3	14.196	14.396	14.638	15.210	15.031	14.796	14.803	14.810	14.817	PT3
	PS2	7.958	7.955	7.951	7.939	7.923	7.908	7.896	7.893	7.889	PS2
	PS3	8.202	8.298	8.390	8.640	8.907	9.125	9.278	9.331	9.387	PS3
	TT2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	TT2
	TT3	348.778	347.055	344.611	339.111	335.389	335.722	339.111	340.889	342.889	TT3
STATOR F	PCT SPAN	96.20	92.50	86.80	70.80	49.89	29.71	13.99	9.40	5.00	PCT SPAN
	DIA	0.423	0.426	0.431	0.446	0.466	0.485	0.500	0.504	0.508	DIA
STATION 3	BETA 3	62.490	58.260	53.980	45.400	41.640	42.230	45.220	46.830	49.110	BETA 3
STATION 4	BETA 4	6.800	8.000	8.900	10.000	9.000	9.400	10.500	10.000	11.100	BETA 4
	V 3	318.86	318.70	319.05	318.85	305.91	294.97	291.78	291.03	290.25	V 3
	V 4	217.42	221.45	226.73	237.41	242.92	235.83	244.45	248.15	250.09	V 4
	VZ 3	147.03	167.38	187.53	223.81	228.42	218.02	205.01	198.57	189.45	VZ 3
	VZ 4	215.89	219.29	223.99	233.76	239.81	232.47	240.10	244.10	245.11	VZ 4
	V-THETA 3	282.32	270.58	257.93	226.95	203.09	197.90	206.59	211.68	218.79	V-THETA 3
	V-THETA 4	25.74	30.82	35.08	41.22	37.98	38.49	44.50	43.04	48.09	V-THETA 4
	M 3	0.9211	0.9233	0.9283	0.9364	0.8980	0.8605	0.8450	0.8400	0.8346	M 3
	M 4	0.6014	0.6150	0.6332	0.6715	0.6927	0.6703	0.6933	0.7028	0.7066	M 4
	TURN (PR)	55.504	50.105	45.043	35.382	32.601	32.745	34.587	36.676	37.834	TURN (PR)
	PT3	14.196	14.396	14.638	15.210	15.031	14.796	14.803	14.810	14.817	PT3
	PT4	13.996	14.141	14.327	14.693	14.776	14.272	14.369	14.424	14.403	PT4
	PS3	8.202	8.298	8.390	8.640	8.907	9.125	9.278	9.331	9.387	PS3
	PS4	10.961	10.956	10.937	10.861	10.721	10.561	10.421	10.373	10.323	PS4
	TT3	348.778	347.055	344.611	339.111	335.389	335.722	339.111	340.889	342.889	TT3
	TT4	348.778	347.055	344.611	339.111	335.389	335.722	339.111	340.889	342.889	TT4

Table B-11. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Percent Equivalent Rotor Speed = 99.95 Equivalent Rotor Speed = 9930.6 Equivalent Weight Flow = 16.74 kg/sec
Circumferential Distortion
Streamline Position = 297 deg
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	95.90	91.90	87.00	70.90	49.60	29.01	13.71	9.20	4.50	PCT SPAN
	DIA	0.425	0.430	0.437	0.460	0.490	0.519	0.540	0.547	0.553	DIA
STATION 1	BETA 1	-16.850	-15.400	-13.600	-12.600	-11.800	-11.800	-11.400	-12.100	-12.900	BETA 1
STATION 2	BETA 2	9.600	9.100	8.800	9.600	10.700	10.800	11.000	11.700	13.700	BETA 2
	V 1	138.64	143.84	144.84	146.51	146.49	145.46	139.01	135.56	131.23	V 1
	V 2	144.73	146.78	152.60	158.24	160.21	160.42	156.51	153.65	148.46	V 2
	VZ 1	132.68	138.68	140.77	142.98	143.40	142.38	136.27	132.55	127.92	VZ 1
	VZ 2	142.70	144.92	150.78	155.90	157.07	156.90	152.69	149.44	143.18	VZ 2
	V-THETA 1	-40.19	-38.20	-34.06	-31.96	-29.96	-29.75	-27.48	-28.42	-29.30	V-THETA 1
	V-THETA 2	24.14	23.21	23.34	26.37	29.68	29.93	29.68	30.95	34.90	V-THETA 2
	M 1	0.4143	0.4305	0.4335	0.4387	0.4387	0.4355	0.4155	0.4048	0.3915	M 1
	M 2	0.4332	0.4396	0.4577	0.4754	0.4816	0.4822	0.4700	0.4610	0.4448	M 2
	TURN	-26.45	-24.50	-22.40	-22.19	-22.48	-22.55	-22.33	-23.72	-26.50	TURN
	PT1	9.584	9.680	9.708	9.770	9.811	9.832	9.749	9.701	9.639	PT1
	PT2	9.442	9.480	9.587	9.701	9.749	9.763	9.694	9.642	9.549	PT2
	PS1	8.516	8.523	8.532	8.560	8.596	8.631	8.657	8.665	8.672	PS1
	PS2	8.300	8.302	8.304	8.310	8.319	8.327	8.333	8.335	8.337	PS2
	TT1	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	TT1
	TT2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	TT2
ROTOR F	PCT SPAN	94.99	90.01	85.01	70.01	49.99	30.01	14.99	10.01	5.01	PCT SPAN
	DIA	0.425	0.430	0.436	0.452	0.475	0.497	0.514	0.519	0.525	DIA
STATION 2	BETA 2	9.600	9.100	8.800	9.600	10.700	10.800	11.000	11.700	13.700	BETA 2
STATION 3	BETA 3	58.900	55.260	51.680	44.220	42.260	42.740	45.220	47.500	50.970	BETA 3
	BETA (PR) 2	54.052	54.156	53.541	53.774	55.087	56.807	58.713	59.458	60.470	BETA (PR) 2
	BETA (PR) 3	-9.287	-4.638	-0.425	7.135	14.469	19.645	22.711	24.065	25.600	BETA (PR) 3
	V 2	144.73	146.78	152.60	158.24	160.21	160.42	156.51	153.65	148.46	V 2
	V 3	286.70	289.01	290.65	298.98	286.08	275.08	266.47	260.48	253.62	V 3
	VZ 2	142.70	144.92	150.78	155.90	157.07	156.90	152.69	149.44	143.18	VZ 2
	VZ 3	147.78	164.37	180.13	214.19	211.55	201.68	187.23	175.51	159.28	VZ 3
	V-THETA 2	24.14	23.21	23.34	26.37	29.68	29.93	29.68	30.95	34.90	V-THETA 2
	V-THETA 3	244.98	237.02	227.92	208.43	192.23	186.36	188.67	191.53	196.49	V-THETA 3
	V (PR) 2	243.1	247.5	253.7	263.9	274.6	287.0	294.5	294.6	291.0	V (PR) 2
	V (PR) 3	150.9	165.9	180.4	216.0	218.8	214.8	203.8	193.1	177.6	V (PR) 3
	VTHETA PR2	-196.8	-200.6	-204.1	-212.8	-225.0	-239.8	-251.3	-253.3	-252.8	VTHETA PR2
	VTHETA PR3	24.2	13.3	1.3	-26.8	-54.6	-72.0	-78.4	-78.4	-76.3	VTHETA PR3
	U 2	220.92	223.83	227.41	239.17	254.73	269.77	280.94	284.23	287.66	U 2
	U 3	220.81	223.69	226.58	235.25	246.81	258.36	267.03	269.91	272.81	U 3
	M 2	0.4332	0.4396	0.4577	0.4754	0.4816	0.4822	0.4700	0.4610	0.4448	M 2
	M 3	0.8313	0.8404	0.8481	0.8815	0.8422	0.8053	0.7745	0.7542	0.7313	M 3
	M (PR) 2	0.7276	0.7412	0.7611	0.7927	0.8256	0.8627	0.8844	0.8840	0.8720	M (PR) 2
	M (PR) 3	0.4375	0.4824	0.5263	0.6369	0.6441	0.6287	0.5925	0.5592	0.5121	M (PR) 3
	TURN (PR)	63.267	58.765	53.960	46.621	40.577	37.104	35.943	35.341	34.828	TURN (PR)
	PT2	9.442	9.480	9.587	9.701	9.749	9.763	9.694	9.642	9.549	PT2
	PT3	13.852	14.107	14.341	15.210	14.976	14.734	14.500	14.286	14.052	PT3
	PS2	8.300	8.302	8.304	8.310	8.319	8.327	8.333	8.335	8.337	PS2
	PS3	8.805	8.883	8.960	9.174	9.414	9.616	9.753	9.798	9.846	PS3
	TT2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	TT2
	TT3	336.889	335.833	334.333	330.722	327.889	328.055	329.889	330.611	331.278	TT3
STATOR F	PCT SPAN	96.20	92.50	86.80	70.80	49.89	29.71	13.99	9.40	5.00	PCT SPAN
	DIA	0.423	0.426	0.431	0.446	0.466	0.485	0.500	0.504	0.508	DIA
STATION 3	BETA 3	58.900	55.260	51.680	44.220	42.260	42.740	45.220	47.500	50.970	BETA 3
STATION 4	BETA 4	8.900	9.400	10.000	10.100	8.300	8.500	7.600	8.000	7.500	BETA 4
	V 3	286.70	289.01	290.65	298.98	286.08	275.08	266.47	260.48	253.62	V 3
	V 4	209.70	216.15	224.93	243.33	243.37	234.98	237.90	237.75	236.87	V 4
	VZ 3	147.78	164.37	180.13	214.19	211.55	201.68	187.23	175.51	159.28	VZ 3
	VZ 4	207.18	213.24	221.51	239.51	240.70	232.21	235.55	235.16	234.55	VZ 4
	V-THETA 3	244.98	237.02	227.92	208.43	192.23	186.36	188.67	191.53	196.49	V-THETA 3
	V-THETA 4	32.44	35.30	39.06	42.66	35.11	34.70	31.43	33.05	30.88	V-THETA 4
	M 3	0.8313	0.8404	0.8481	0.8815	0.8422	0.8053	0.7745	0.7542	0.7313	M 3
	M 4	0.5894	0.6099	0.6382	0.6993	0.7028	0.6761	0.6832	0.6819	0.6784	M 4
	TURN (PR)	45.800	45.698	41.643	34.102	33.920	34.154	37.484	39.344	43.291	TURN (PR)
	PT3	13.852	14.107	14.341	15.210	14.976	14.734	14.500	14.286	14.052	PT3
	PT4	13.562	13.776	14.079	14.755	14.624	14.079	13.983	13.907	13.803	PT4
	PS3	8.805	8.883	8.960	9.174	9.414	9.616	9.753	9.798	9.846	PS3
	PS4	10.721	10.717	10.704	10.644	10.517	10.366	10.231	10.187	10.142	PS4
	TT3	336.889	335.833	334.333	330.722	327.889	328.055	329.889	330.611	331.278	TT3
	TT4	336.889	335.833	334.333	330.722	327.889	328.055	329.889	330.611	331.278	TT4

Table B-11. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Percent Equivalent Rotor Speed = 99.95 Equivalent Rotor Speed = 9930.6 Equivalent Weight Flow = 16.74 kg/sec
Circumferential Distortion
Streamline Position = 327 deg
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	95.90	91.90	87.00	70.90	49.60	29.01	13.71	9.20	4.50	PCT SPAN
	DIA	0.425	0.430	0.437	0.460	0.490	0.519	0.540	0.547	0.553	DIA
STATION 1	BETA 1	-6.350	-5.100	-4.250	-3.300	-3.320	-3.650	-4.000	-4.300	-4.600	BETA 1
STATION 2	BETA 2	12.100	11.900	11.000	11.200	12.300	12.500	12.700	13.500	15.300	BETA 2
	V 1	122.38	126.22	131.18	134.13	135.01	133.08	130.17	125.31	123.11	V 1
	V 2	144.95	148.70	154.10	162.82	163.15	161.29	158.68	155.56	151.00	V 2
	VZ 1	121.63	125.72	130.82	133.91	134.78	132.81	129.85	124.96	122.71	VZ 1
	VZ 2	141.73	145.49	151.24	159.59	159.05	156.81	153.86	150.27	144.60	VZ 2
	V-THETA 1	-13.54	-11.22	-9.72	-7.72	-7.82	-8.47	-9.08	-9.40	-9.87	V-THETA 1
	V-THETA 2	30.38	30.66	29.40	31.60	34.68	34.76	34.67	36.08	39.56	V-THETA 2
	M 1	0.3644	0.3761	0.3913	0.4004	0.4031	0.3972	0.3882	0.3733	0.3666	M 1
	M 2	0.4339	0.4456	0.4624	0.4898	0.4909	0.4850	0.4768	0.4670	0.4527	M 2
	TURN	-18.45	-17.00	-15.25	-14.49	-15.59	-16.10	-16.62	-17.71	-19.79	TURN
	PT1	9.542	9.604	9.687	9.756	9.798	9.791	9.763	9.694	9.667	PT1
	PT2	9.380	9.449	9.553	9.739	9.770	9.756	9.722	9.667	9.587	PT2
	PS1	8.706	8.711	8.716	8.736	8.760	8.782	8.799	8.805	8.810	PS1
	PS2	8.242	8.246	8.250	8.266	8.286	8.306	8.321	8.325	8.330	PS2
	TT1	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	TT1
	TT2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	TT2
ROTOR F	PCT SPAN	94.99	90.01	85.01	70.01	49.99	30.01	14.99	10.01	5.01	PCT SPAN
	DIA	0.425	0.430	0.436	0.452	0.475	0.497	0.514	0.519	0.525	DIA
STATION 2	BETA 2	12.100	11.900	11.000	11.200	12.300	12.500	12.700	13.500	15.300	BETA 2
STATION 3	BETA 3	61.990	57.300	53.360	45.890	43.600	43.810	47.210	50.130	54.050	BETA 3
	BETA (PR) 2	53.356	53.014	52.627	52.444	54.140	56.287	58.004	58.804	59.766	BETA (PR) 2
	BETA (PR) 3	-12.459	-6.820	-2.550	5.643	12.576	18.441	20.866	21.729	22.853	BETA (PR) 3
	V 2	144.95	148.70	154.10	162.82	163.15	161.29	158.68	155.56	151.00	V 2
	V 3	283.91	288.43	292.19	299.10	290.21	277.41	269.60	264.48	258.70	V 3
	VZ 2	141.73	145.49	151.24	159.59	159.05	156.81	153.86	150.27	144.60	VZ 2
	VZ 3	133.10	155.55	174.29	208.12	209.99	199.85	182.72	169.14	151.53	VZ 3
	V-THETA 2	30.38	30.66	29.40	31.60	34.68	34.76	34.67	36.08	39.56	V-THETA 2
	V-THETA 3	250.22	242.29	234.34	214.68	199.97	191.72	197.39	202.50	208.94	V-THETA 3
	V(PR) 2	237.5	241.8	249.2	261.9	271.7	282.9	290.9	290.7	287.7	V(PR) 2
	V(PR) 3	137.3	157.6	174.7	209.3	215.5	211.3	196.4	183.0	165.4	V(PR) 3
	VTHETA PR2	-190.5	-193.2	-198.0	-207.6	-220.0	-235.0	-246.3	-248.2	-248.1	VTHETA PR2
	VTHETA PR3	29.4	18.6	7.8	-20.6	-46.8	-66.6	-69.6	-67.4	-63.9	VTHETA PR3
	U 2	220.92	223.83	227.41	239.17	254.73	269.77	280.94	284.23	287.66	U 2
	U 3	220.81	223.69	226.58	235.25	246.81	258.36	267.03	269.91	272.81	U 3
	M 2	0.4339	0.4456	0.4624	0.4898	0.4909	0.4850	0.4768	0.4670	0.4527	M 2
	M 3	0.8227	0.8389	0.8534	0.8814	0.8550	0.8128	0.7836	0.7652	0.7451	M 3
	M(PR) 2	0.7108	0.7247	0.7478	0.7879	0.8175	0.8507	0.8741	0.8725	0.8627	M(PR) 2
	M(PR) 3	0.3980	0.4584	0.5102	0.6167	0.6348	0.6191	0.5708	0.5294	0.4763	M(PR) 3
	TURN (PR)	65.720	59.791	55.168	46.783	41.520	37.785	37.070	37.010	36.856	TURN (PR)
	PT2	9.380	9.449	9.553	9.739	9.770	9.756	9.722	9.667	9.587	PT2
	PT3	13.817	14.176	14.520	15.334	15.334	15.024	14.817	14.631	14.431	PT3
	PS2	8.242	8.246	8.250	8.266	8.286	8.306	8.321	8.325	8.330	PS2
	PS3	8.861	8.941	9.022	9.250	9.511	9.731	9.879	9.930	9.983	PS3
	TT2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	TT2
	TT3	336.500	335.555	334.222	331.111	328.611	328.167	330.778	332.111	333.333	TT3
STATOR F	PCT SPAN	96.20	92.50	86.80	70.80	49.89	29.71	13.99	9.40	5.00	PCT SPAN
	DIA	0.423	0.426	0.431	0.446	0.466	0.485	0.500	0.504	0.508	DIA
STATION 3	BETA 3	61.990	57.300	53.360	45.890	43.600	43.810	47.210	50.130	54.050	BETA 3
STATION 4	BETA 4	6.200	6.900	8.200	10.000	8.600	8.400	8.900	9.300	9.200	BETA 4
	V 3	283.91	288.43	292.19	299.10	290.21	277.41	269.60	264.48	258.70	V 3
	V 4	211.10	220.26	231.78	252.17	252.79	243.47	247.51	248.25	247.64	V 4
	VZ 3	133.10	155.55	174.29	208.12	209.99	199.85	182.72	169.14	151.53	VZ 3
	VZ 4	209.87	218.66	229.40	248.29	249.83	240.66	244.27	244.70	244.16	VZ 4
	V-THETA 3	250.22	242.29	234.34	214.68	199.97	191.72	197.39	202.50	208.94	V-THETA 3
	V-THETA 4	22.80	26.46	33.06	43.78	37.78	35.54	38.25	40.07	39.54	V-THETA 4
	M 3	0.8227	0.8389	0.8534	0.8814	0.8550	0.8128	0.7836	0.7652	0.7451	M 3
	M 4	0.5940	0.6226	0.6594	0.7269	0.7320	0.7028	0.7125	0.7133	0.7099	M 4
	TURN (PR)	55.602	50.243	45.123	35.872	34.960	35.324	38.176	40.677	44.679	TURN (PR)
	PT3	13.817	14.176	14.520	15.334	15.334	15.024	14.817	14.631	14.431	PT3
	PT4	13.507	13.810	14.217	14.989	14.851	14.231	14.155	14.100	13.990	PT4
	PS3	8.861	8.941	9.022	9.250	9.511	9.731	9.879	9.930	9.983	PS3
	PS4	10.639	10.634	10.619	10.546	10.400	10.234	10.091	10.044	9.996	PS4
	TT3	336.500	335.555	334.222	331.111	328.611	328.167	330.778	332.111	333.333	TT3
	TT4	336.500	335.555	334.222	331.111	328.611	328.167	330.778	332.111	333.333	TT4

ORIGINAL PAGE IS OF POOR QUALITY

Table B-11. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Percent Equivalent Rotor Speed = 99.95 Equivalent Rotor Speed = 9930.6 Equivalent Weight Flow = 16.74 kg/sec
Circumferential Distortion
Streamline Position = 357 deg
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	95.90	91.90	87.00	70.90	49.60	29.01	13.71	9.20	4.50	PCT SPAN
	DIA	0.425	0.430	0.437	0.460	0.490	0.519	0.540	0.547	0.553	DIA
STATION 1	BETA 1	-0.400	0.450	0.880	1.300	1.350	0.680	0.480	0.450	0.[illegible]50	BETA 1
STATION 2	BETA 2	13.800	13.300	13.000	13.700	14.400	15.300	16.300	16.800	17.400	BETA 2
	V 1	120.76	125.17	128.79	132.33	132.42	131.32	127.08	122.56	119.56	V 1
	V 2	151.51	156.02	161.86	166.89	166.27	164.98	162.55	160.08	154.98	V 2
	VZ 1	120.76	125.16	128.77	132.29	132.38	131.31	127.08	122.56	119.55	VZ 1
	VZ 2	147.13	151.83	157.68	162.01	160.69	158.48	155.10	152.27	146.85	VZ 2
	V-THETA 1	-0.84	0.98	1.98	3.00	3.12	1.56	1.06	0.96	0.94	V-THETA 1
	V-THETA 2	36.14	35.89	36.40	39.49	41.26	43.35	45.36	45.97	46.02	V-THETA 2
	M 1	0.3594	0.3729	0.3840	0.3949	0.3952	0.3918	0.3788	0.3649	0.3558	M 1
	M 2	0.4543	0.4685	0.4868	0.5027	0.5007	0.4966	0.4890	0.4812	0.4652	M 2
	TURN	-14.20	-12.85	-12.12	-12.39	-13.02	-14.56	-15.72	-16.24	-16.82	TURN
	PT1	9.549	9.618	9.680	9.756	9.784	9.791	9.742	9.680	9.646	PT1
	PT2	9.442	9.529	9.646	9.763	9.770	9.763	9.729	9.684	9.591	PT2
	PS1	8.734	8.738	8.744	8.762	8.785	8.807	8.824	8.830	8.838	PS1
	PS2	8.196	8.199	8.203	8.216	8.232	8.249	8.261	8.265	8.269	PS2
	TT1	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	TT1
	TT2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	TT2
ROTOR F	PCT SPAN	94.99	90.01	85.01	70.01	49.99	30.01	14.99	10.01	5.01	PCT SPAN
	DIA	0.425	0.430	0.436	0.452	0.475	0.497	0.514	0.519	0.525	DIA
STATION 2	BETA 2	13.800	13.300	13.000	13.700	14.400	15.300	16.300	16.800	17.400	BETA 2
STATION 3	BETA 3	65.440	60.460	56.110	48.540	45.410	46.860	51.920	54.370	57.400	BETA 3
	BETA (PR) 2	51.470	51.067	50.460	50.945	53.028	55.010	56.640	57.418	58.713	BETA (PR) 2
	BETA (PR) 3	-18.820	-11.890	-6.644	2.507	10.068	16.150	18.851	19.914	21.430	BETA (PR) 3
	V 2	151.51	156.02	161.86	166.89	166.27	164.98	162.55	160.08	154.98	V 2
	V 3	287.96	292.38	296.25	302.31	295.18	278.92	268.16	264.15	259.35	V 3
	VZ 2	147.13	151.83	157.68	162.01	160.69	158.48	155.10	152.27	146.85	VZ 2
	VZ 3	139.52	143.94	165.12	200.10	207.07	190.43	165.07	153.58	139.46	VZ 3
	V-THETA 2	36.14	35.89	36.40	39.49	41.26	43.35	45.36	45.97	46.02	V-THETA 2
	V-THETA 3	261.54	254.00	245.81	226.49	210.05	203.21	210.68	214.28	218.07	V-THETA 3
	V(PR) 2	236.2	241.6	247.7	257.2	267.4	276.8	282.6	283.3	283.4	V(PR) 2
	V(PR) 3	127.2	147.9	166.5	200.4	210.6	198.8	175.2	164.2	150.7	V(PR) 3
	VTHETA PR2	-184.8	-187.9	-191.0	-199.7	-213.5	-226.4	-235.6	-238.3	-241.6	VTHETA PR2
	VTHETA PR3	40.7	30.3	19.2	-8.8	-36.8	-55.1	-56.4	-55.6	-54.7	VTHETA PR3
	U 2	220.92	223.83	227.41	239.17	254.73	269.77	280.94	284.23	287.66	U 2
	U 3	220.81	223.69	226.58	235.25	246.81	258.36	267.03	269.91	272.81	U 3
	M 2	0.4543	0.4685	0.4868	0.5027	0.5007	0.4966	0.4890	0.4812	0.4652	M 2
	M 3	0.8341	0.8500	0.8652	0.8908	0.8707	0.8170	0.7780	0.7634	0.7462	M 3
	M(PR) 2	0.7083	0.7254	0.7450	0.7747	0.8053	0.8331	0.8501	0.8517	0.8505	M(PR) 2
	M(PR) 3	0.3684	0.4301	0.4861	0.5906	0.6212	0.5825	0.5084	0.4745	0.4336	M(PR) 3
	TURN (PR)	70.152	62.886	57.090	48.417	42.912	38.791	37.710	37.427	37.216	TURN (PR)
	PT2	9.442	9.529	9.646	9.763	9.770	9.763	9.729	9.684	9.591	PT2
	PT3	13.865	14.238	14.610	15.431	15.568	15.100	14.776	14.651	14.500	PT3
	PS2	8.196	8.199	8.203	8.216	8.232	8.249	8.261	8.265	8.269	PS2
	PS3	8.788	8.877	8.966	9.214	9.499	9.738	9.904	9.961	10.020	PS3
	TT2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	TT2
	TT3	337.833	336.944	335.444	332.055	329.389	328.722	331.389	332.667	334.055	TT3
STATOR F	PCT SPAN	96.20	92.50	86.80	70.80	49.89	29.71	13.99	9.40	5.00	PCT SPAN
	DIA	0.423	0.426	0.431	0.446	0.466	0.485	0.500	0.504	0.508	DIA
STATION 3	BETA 3	65.440	60.460	56.110	48.540	45.410	46.860	51.920	54.370	57.400	BETA 3
STATION 4	BETA 4	4.900	5.600	7.500	9.000	7.800	7.900	8.700	8.900	8.600	BETA 4
	V 3	287.96	292.38	296.25	302.31	295.18	278.92	268.16	264.15	259.35	V 3
	V 4	213.97	223.27	234.22	254.87	255.51	248.76	247.55	248.07	248.02	V 4
	VZ 3	139.52	143.94	165.12	200.10	207.07	190.43	165.07	153.58	139.46	VZ 3
	VZ 4	213.19	222.20	232.20	251.68	253.02	246.19	244.44	244.80	244.92	VZ 4
	V-THETA 3	261.54	254.00	245.81	226.49	210.05	203.21	210.68	214.28	218.07	V-THETA 3
	V-THETA 4	18.28	21.79	30.57	39.86	34.66	34.16	37.40	38.33	37.04	V-THETA 4
	M 3	0.8341	0.8500	0.8652	0.8908	0.8707	0.8170	0.7780	0.7634	0.7462	M 3
	M 4	0.6014	0.6304	0.6656	0.7344	0.7397	0.7189	0.7119	0.7121	0.7102	M 4
	TURN (PR)	60.369	54.711	48.574	39.522	37.570	38.874	43.089	45.323	48.636	TURN (PR)
	PT3	13.865	14.238	14.610	15.431	15.568	15.100	14.776	14.651	14.500	PT3
	PT4	13.555	13.865	14.258	15.051	14.913	14.396	14.107	14.045	13.955	PT4
	PS3	8.788	8.877	8.966	9.214	9.499	9.738	9.904	9.961	10.020	PS3
	PS4	10.616	10.609	10.593	10.517	10.368	10.203	10.062	10.016	9.969	PS4
	TT3	337.833	336.944	335.444	332.055	329.389	328.722	331.389	332.667	334.055	TT3
	TT4	337.833	336.944	335.444	332.055	329.389	328.722	331.389	332.667	334.055	TT4

Table B-11. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Percent Equivalent Rotor Speed = 99.92 Equivalent Rotor Speed = 9928.5 Equivalent Weight Flow = 15.81 kg/sec
Circumferential Distortion
Streamline Position = 27 deg
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	95.90	91.90	87.00	70.90	49.60	29.01	13.71	9.20	4.50	PCT SPAN
	DIA	0.425	0.430	0.437	0.460	0.490	0.519	0.540	0.547	0.553	DIA
STATION 1	BETA 1	7.100	7.000	6.900	6.700	6.500	5.950	5.700	5.800	5.900	BETA 1
STATION 2	BETA 2	17.300	17.000	17.300	17.900	19.100	19.200	20.500	21.600	22.300	BETA 2
	V 1	121.84	126.17	127.52	129.34	128.57	124.29	118.33	117.42	112.56	V 1
	V 2	153.97	156.37	159.02	160.78	161.66	160.46	155.17	153.86	151.45	V 2
	VZ 1	120.90	125.23	126.60	128.46	127.74	123.62	117.74	116.81	111.96	VZ 1
	VZ 2	147.00	149.52	151.80	152.88	152.44	150.94	144.53	142.19	139.20	VZ 2
	V-THETA 1	15.06	15.38	15.32	15.09	14.55	12.88	11.75	11.87	11.57	V-THETA 1
	V-THETA 2	45.79	45.71	47.28	49.38	52.79	52.56	54.04	56.30	57.09	V-THETA 2
	M 1	0.3627	0.3760	0.3801	0.3857	0.3833	0.3702	0.3520	0.3492	0.3344	M 1
	M 2	0.4620	0.4695	0.4779	0.4834	0.4861	0.4824	0.4658	0.4617	0.4541	M 2
	TURN	-10.20	-10.00	-10.40	-11.19	-12.56	-13.17	-14.68	-15.66	-16.24	TURN
	PT1	9.625	9.694	9.722	9.770	9.784	9.742	9.673	9.667	9.604	PT1
	PT2	9.584	9.632	9.687	9.735	9.770	9.763	9.673	9.653	9.611	PT2
	PS1	8.789	8.793	8.799	8.817	8.841	8.863	8.879	8.885	8.889	PS1
	PS2	8.279	8.282	8.286	8.297	8.312	8.326	8.337	8.341	8.343	PS2
	TT1	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	TT1
	TT2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	TT2
ROTOR F	PCT SPAN	94.99	90.01	85.01	70.01	49.99	30.01	14.99	10.01	5.01	PCT SPAN
	DIA	0.425	0.430	0.436	0.452	0.475	0.497	0.514	0.519	0.525	DIA
STATION 2	BETA 2	17.300	17.000	17.300	17.900	19.100	19.200	20.500	21.600	22.300	BETA 2
STATION 3	BETA 3	66.440	61.230	57.160	50.400	48.080	48.660	54.830	58.430	63.500	BETA 3
	BETA (PR) 2	49.983	49.981	49.871	51.140	52.944	55.198	57.497	58.037	58.874	BETA (PR) 2
	BETA (PR) 3	-24.250	-15.647	-9.749	0.009	7.758	14.122	17.023	18.301	20.502	BETA (PR) 3
	V 2	153.97	156.37	159.02	160.78	161.66	160.46	155.17	153.86	151.45	V 2
	V 3	300.09	301.93	303.37	305.29	295.69	282.09	269.10	263.66	257.22	V 3
	VZ 2	147.00	149.52	151.80	152.88	152.44	150.94	144.53	142.19	139.20	VZ 2
	VZ 3	119.80	145.11	164.45	194.54	197.42	186.06	154.74	137.81	114.62	VZ 3
	V-THETA 2	45.79	45.71	47.28	49.38	52.79	52.56	54.04	56.30	57.09	V-THETA 2
	V-THETA 3	274.73	264.29	254.79	235.16	219.87	211.49	219.60	224.28	229.89	V-THETA 3
	V (PR) 2	228.6	232.5	235.5	243.7	253.2	264.8	269.5	269.1	269.8	V (PR) 2
	V (PR) 3	132.3	151.5	167.1	194.7	199.5	192.4	162.6	145.9	123.1	V (PR) 3
	VTHETA PR2	-175.1	-178.1	-180.1	-189.7	-201.9	-217.1	-226.8	-227.9	-230.5	VTHETA PR2
	VTHETA PR3	54.0	40.6	28.3	-0.0	-26.9	-46.8	-47.4	-45.6	-42.9	VTHETA PR3
	U 2	220.87	223.79	227.37	239.12	254.67	269.71	280.88	284.17	287.60	U 2
	U 3	220.76	223.64	226.53	235.20	246.76	258.30	266.98	269.86	272.75	U 3
	M 2	0.4620	0.4695	0.4779	0.4834	0.4861	0.4824	0.4658	0.4617	0.4541	M 2
	M 3	0.8737	0.8822	0.8899	0.9019	0.8733	0.8282	0.7818	0.7624	0.7401	M 3
	M (PR) 2	0.6860	0.6982	0.7078	0.7328	0.7614	0.7962	0.8089	0.8075	0.8092	M (PR) 2
	M (PR) 3	0.3851	0.4428	0.4901	0.5751	0.5894	0.5650	0.4723	0.4219	0.3542	M (PR) 3
	TURN (PR)	74.064	65.536	59.602	51.107	45.134	41.001	40.390	39.654	38.301	TURN (PR)
	PT2	9.584	9.632	9.687	9.735	9.770	9.763	9.673	9.653	9.611	PT2
	PT3	14.334	14.631	14.913	15.555	15.582	15.272	14.845	14.658	14.445	PT3
	PS2	8.279	8.282	8.286	8.297	8.312	8.326	8.337	8.341	8.343	PS2
	PS3	8.718	8.818	8.914	9.178	9.480	9.738	9.915	9.975	10.039	PS3
	TT2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	TT2
	TT3	338.389	336.833	335.000	331.500	328.778	328.278	330.889	332.222	333.500	TT3
STATOR F	PCT SPAN	96.20	92.50	86.80	70.80	49.89	29.71	13.99	9.40	5.00	PCT SPAN
	DIA	0.423	0.426	0.431	0.446	0.466	0.485	0.500	0.504	0.508	DIA
STATION 3	BETA 3	66.440	61.230	57.160	50.400	48.080	48.660	54.830	58.430	63.500	BETA 3
STATION 4	BETA 4	5.700	7.100	8.100	9.800	8.600	8.300	7.900	8.100	7.800	BETA 4
	V 3	300.09	301.93	303.37	305.29	295.69	282.09	269.10	263.66	257.22	V 3
	V 4	205.45	212.85	221.93	242.14	242.70	233.89	231.54	231.39	230.51	V 4
	VZ 3	119.80	145.11	164.45	194.54	197.42	186.06	154.74	137.81	114.62	VZ 3
	VZ 4	204.44	211.21	219.70	238.56	239.85	231.25	229.09	228.81	228.09	VZ 4
	V-THETA 3	274.73	264.29	254.79	235.16	219.87	211.49	219.60	224.28	229.89	V-THETA 3
	V-THETA 4	20.41	26.31	31.27	41.21	36.27	33.74	31.79	32.56	31.24	V-THETA 4
	M 3	0.8737	0.8822	0.8899	0.9019	0.8733	0.8282	0.7818	0.7624	0.7401	M 3
	M 4	0.5753	0.5989	0.6283	0.6947	0.6996	0.6724	0.6622	0.6603	0.6562	M 4
	TURN (PR)	60.574	53.984	49.025	40.582	39.140	40.275	46.802	50.191	55.556	TURN (PR)
	PT3	14.334	14.631	14.913	15.555	15.582	15.272	14.845	14.658	14.445	PT3
	PT4	13.872	14.121	14.438	15.189	15.079	14.527	14.238	14.162	14.058	PT4
	PS3	8.718	8.818	8.914	9.178	9.480	9.738	9.915	9.975	10.039	PS3
	PS4	11.085	11.080	11.066	11.002	10.875	10.730	10.608	10.569	10.528	PS4
	TT3	338.389	336.833	335.000	331.500	328.778	328.278	330.889	332.222	333.500	TT3
	TT4	338.389	336.833	335.000	331.500	328.778	328.278	330.889	332.222	333.500	TT4

ORIGINAL PAGE IS
OF POOR QUALITY

Table B-11. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Percent Equivalent Rotor Speed = 99.92 Equivalent Rotor Speed = 9928.5 Equivalent Weight Flow = 15.81 kg/sec
Circumferential Distortion
Streamline Position = 57 deg
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	95.90	91.90	87.00	70.90	49.60	29.01	13.71	9.20	4.50	PCT SPAN
	DIA	0.425	0.430	0.437	0.460	0.490	0.519	0.540	0.547	0.553	DIA
STATION 1	BETA 1	13.850	13.400	12.900	11.400	11.300	10.250	11.150	11.800	12.400	BETA 1
STATION 2	BETA 2	17.700	17.400	16.900	16.900	17.300	18.300	18.600	18.900	22.000	BETA 2
	V 1	128.03	129.12	133.57	135.02	136.63	135.79	129.24	125.80	122.72	V 1
	V 2	155.93	159.34	161.22	165.23	165.54	163.48	160.63	157.18	154.78	V 2
	VZ 1	124.31	125.61	130.20	132.36	133.98	133.62	126.80	123.14	119.86	VZ 1
	VZ 2	148.54	152.04	154.23	157.97	157.72	154.59	151.37	147.78	142.56	VZ 2
	V-THETA 1	30.65	29.92	29.82	26.69	26.77	24.16	24.99	25.73	26.35	V-THETA 1
	V-THETA 2	47.41	47.65	46.86	48.00	49.12	51.13	50.94	50.59	57.60	V-THETA 2
	M 1	0.3817	0.3850	0.3987	0.4032	0.4081	0.4056	0.3854	0.3748	0.3654	M 1
	M 2	0.4681	0.4789	0.4848	0.4974	0.4984	0.4919	0.4829	0.4721	0.4646	M 2
	TURN	-3.85	-4.00	-4.00	-5.49	-5.96	-7.97	-7.34	-6.98	-9.45	TURN
	PT1	9.618	9.639	9.715	9.756	9.804	9.811	9.722	9.673	9.632	PT1
	PT2	9.515	9.584	9.625	9.722	9.749	9.729	9.687	9.625	9.584	PT2
	PS1	8.699	8.702	8.707	8.723	8.742	8.761	8.775	8.779	8.783	PS1
	PS2	8.188	8.192	8.196	8.210	8.228	8.246	8.259	8.263	8.266	PS2
	TT1	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	TT1
	TT2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	TT2
ROTOR F	PCT SPAN	94.99	90.01	85.01	70.01	49.99	30.01	14.99	10.01	5.01	PCT SPAN
	DIA	0.425	0.430	0.436	0.452	0.475	0.497	0.514	0.519	0.525	DIA
STATION 2	BETA 2	17.700	17.400	16.900	16.900	17.300	18.300	18.600	18.900	22.000	BETA 2
STATION 3	BETA 3	68.510	62.620	57.730	48.720	45.860	48.010	52.800	56.760	62.740	BETA 3
	BETA (PR) 2	49.425	49.200	49.488	50.424	52.501	54.730	56.643	57.680	58.210	BETA (PR) 2
	BETA (PR) 3	-28.093	-17.608	-10.147	2.245	9.941	15.337	18.772	19.463	20.501	BETA (PR) 3
	V 2	155.93	159.34	161.22	165.23	165.54	163.48	160.63	157.18	154.78	V 2
	V 3	300.70	301.78	302.17	302.65	294.09	279.13	266.93	262.43	257.63	V 3
	VZ 2	148.54	152.04	154.23	157.97	157.72	154.59	151.37	147.78	142.56	VZ 2
	VZ 3	110.04	138.61	161.27	199.61	204.65	186.46	161.09	143.60	117.83	VZ 3
	V-THETA 2	47.41	47.65	46.86	48.00	49.12	51.13	50.94	50.59	57.60	V-THETA 2
	V-THETA 3	279.50	267.63	255.40	227.37	210.89	207.16	212.23	219.11	228.69	V-THETA 3
	V (PR) 2	228.4	232.7	237.4	248.0	259.3	268.1	275.8	277.0	271.2	V (PR) 2
	V (PR) 3	125.5	146.2	164.0	199.9	208.1	193.9	170.9	153.1	126.5	V (PR) 3
	VTHETA PR2	-173.5	-176.1	-180.5	-191.1	-205.5	-218.6	-229.9	-233.6	-230.0	VTHETA PR2
	VTHETA PR3	58.7	44.0	28.9	-7.8	-35.9	-51.1	-54.8	-50.7	-44.1	VTHETA PR3
	U 2	220.87	223.79	227.37	239.12	254.67	269.71	280.88	284.17	287.60	U 2
	U 3	220.76	223.64	226.53	235.20	246.76	258.30	266.98	269.86	272.75	U 3
	M 2	0.4681	0.4789	0.4848	0.4974	0.4984	0.4919	0.4829	0.4721	0.4646	M 2
	M 3	0.8748	0.8810	0.8857	0.8950	0.8698	0.8194	0.7756	0.7591	0.7419	M 3
	M (PR) 2	0.6857	0.6993	0.7140	0.7467	0.7807	0.8068	0.8292	0.8318	0.8139	M (PR) 2
	M (PR) 3	0.3651	0.4269	0.4809	0.5912	0.6155	0.5693	0.4966	0.4428	0.3644	M (PR) 3
	TURN (PR)	77.330	66.706	59.617	48.157	42.510	39.321	37.790	38.139	37.635	TURN (PR)
	PT2	9.515	9.584	9.625	9.722	9.749	9.729	9.687	9.625	9.584	PT2
	PT3	14.176	14.438	14.672	15.251	15.306	14.900	14.514	14.369	14.224	PT3
	PS2	8.188	8.192	8.196	8.210	8.228	8.246	8.259	8.263	8.266	PS2
	PS3	8.612	8.713	8.810	9.066	9.347	9.587	9.752	9.809	9.869	PS3
	TT2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	TT2
	TT3	339.055	337.333	335.055	330.111	327.500	327.555	330.222	331.667	333.111	TT3
STATOR F	PCT SPAN	96.20	92.50	86.80	70.80	49.89	29.71	13.99	9.40	5.00	PCT SPAN
	DIA	0.423	0.426	0.431	0.446	0.466	0.485	0.500	0.504	0.508	DIA
STATION 3	BETA 3	68.510	62.620	57.730	48.720	45.860	48.010	52.800	56.760	62.740	BETA 3
STATION 4	BETA 4	7.700	7.500	7.900	9.900	9.200	8.400	7.300	7.200	6.300	BETA 4
	V 3	300.70	301.78	302.17	302.65	294.09	279.13	266.93	262.43	257.63	V 3
	V 4	201.07	206.50	213.90	230.47	230.18	222.07	219.09	219.91	221.02	V 4
	VZ 3	110.04	138.61	161.27	199.61	204.65	186.46	161.09	143.60	117.83	VZ 3
	VZ 4	199.26	204.73	211.86	226.99	227.11	219.51	217.07	217.92	219.41	VZ 4
	V-THETA 3	279.50	267.63	255.40	227.37	210.89	207.16	212.23	219.11	228.69	V-THETA 3
	V-THETA 4	26.94	26.95	29.40	39.62	36.78	32.41	27.81	27.53	24.22	V-THETA 4
	M 3	0.8748	0.8810	0.8857	0.8950	0.8698	0.8194	0.7756	0.7591	0.7419	M 3
	M 4	0.5617	0.5794	0.6038	0.6597	0.6617	0.6364	0.6244	0.6255	0.6274	M 4
	TURN (PR)	60.655	54.979	49.795	38.802	36.620	39.524	45.369	49.416	56.291	TURN (PR)
	PT3	14.176	14.438	14.672	15.251	15.306	14.900	14.514	14.369	14.224	PT3
	PT4	13.900	14.079	14.327	14.907	14.769	14.286	14.003	13.969	13.941	PT4
	PS3	8.612	8.713	8.810	9.066	9.347	9.587	9.752	9.809	9.869	PS3
	PS4	11.221	11.215	11.199	11.130	11.009	10.877	10.767	10.731	10.693	PS4
	TT3	339.055	337.333	335.055	330.111	327.500	327.555	330.222	331.667	333.111	TT3
	TT4	339.055	337.333	335.055	330.111	327.500	327.555	330.222	331.667	333.111	TT4

Table B-11. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Percent Equivalent Rotor Speed = 99.92 Equivalent Rotor Speed = 9928.5 Equivalent Weight Flow = 15.81 kg/sec
Circumferential Distortion
Streamline Position = 87 deg
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	95.90	91.90	87.00	70.90	49.60	29.01	13.71	9.20	4.50	PCT SPAN
	DIA	0.425	0.430	0.437	0.460	0.490	0.519	0.540	0.547	0.553	DIA
STATION 1	BETA 1	23.100	22.000	21.500	20.000	19.400	18.100	20.200	21.300	23.000	BETA 1
STATION 2	BETA 2	23.200	21.200	20.700	20.700	21.200	23.200	23.900	25.700	27.700	BETA 2
	V 1	136.60	148.04	150.20	158.81	153.18	148.20	145.93	143.86	137.26	V 1
	V 2	166.72	168.46	170.46	173.27	174.34	175.79	171.80	171.16	166.43	V 2
	VZ 1	125.65	137.26	139.75	149.23	144.48	140.86	136.95	134.03	126.35	VZ 1
	VZ 2	153.24	157.05	159.43	161.97	162.21	160.97	156.23	153.35	146.47	VZ 2
	V-THETA 1	53.59	55.46	55.05	54.32	50.88	46.04	50.39	52.26	53.63	V-THETA 1
	V-THETA 2	65.68	60.91	60.24	61.20	62.92	68.99	69.23	73.80	76.90	V-THETA 2
	M 1	0.4081	0.4435	0.4502	0.4772	0.4596	0.4440	0.4369	0.4305	0.4101	M 1
	M 2	0.5021	0.5076	0.5140	0.5229	0.5263	0.5309	0.5182	0.5162	0.5012	M 2
	TURN	-0.10	0.80	0.80	-0.68	-1.76	-5.01	-3.57	-4.24	-4.52	TURN
	PT1	9.356	9.556	9.604	9.798	9.729	9.673	9.660	9.632	9.529	PT1
	PT2	9.398	9.439	9.487	9.570	9.625	9.687	9.625	9.618	9.529	PT2
	PS1	8.343	8.349	8.357	8.383	8.417	8.449	8.472	8.480	8.487	PS1
	PS2	7.911	7.917	7.923	7.943	7.970	7.995	8.015	8.020	8.026	PS2
	TT1	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	TT1
	TT2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	TT2
ROTOR F	PCT SPAN	94.99	90.01	85.01	70.01	49.99	30.01	14.99	10.01	5.01	PCT SPAN
	DIA	0.425	0.430	0.436	0.452	0.475	0.497	0.514	0.519	0.525	DIA
STATION 2	BETA 2	23.200	21.200	20.700	20.700	21.200	23.200	23.900	25.700	27.700	BETA 2
STATION 3	BETA 3	76.820	65.850	58.670	49.570	48.070	53.020	59.260	63.560	69.020	BETA 3
	BETA(PR) 2	45.363	46.044	46.349	47.686	49.770	51.272	53.566	53.910	55.196	BETA(PR) 2
	BETA(PR) 3	-40.107	-16.610	-6.125	6.183	13.690	18.374	22.174	23.681	26.735	BETA(PR) 3
	V 2	166.72	168.46	170.46	173.27	174.34	175.79	171.80	171.16	166.43	V 2
	V 3	282.57	283.22	283.84	282.96	272.33	258.96	250.35	247.71	245.04	V 3
	VZ 2	153.24	157.05	159.43	161.97	162.21	160.97	156.23	153.35	146.47	VZ 2
	VZ 3	64.40	115.76	147.53	183.45	181.85	155.59	127.80	110.17	87.66	VZ 3
	V-THETA 2	65.68	60.91	60.24	61.20	62.92	68.99	69.23	73.80	76.90	V-THETA 2
	V-THETA 3	275.01	258.17	242.36	215.32	202.47	206.62	214.89	221.54	228.60	V-THETA 3
	V(PR) 2	218.1	226.3	231.0	240.7	251.4	257.7	263.7	261.0	257.3	V(PR) 2
	V(PR) 3	88.6	121.5	148.6	184.6	187.4	164.4	138.6	120.9	98.7	V(PR) 3
	VTHETA PR2	-155.2	-162.9	-167.1	-177.9	-191.8	-200.7	-211.6	-210.4	-210.7	VTHETA PR2
	VTHETA PR3	54.2	34.5	15.8	-19.9	-44.3	-51.7	-52.1	-48.3	-44.2	VTHETA PR3
	U 2	220.87	223.79	227.37	239.12	254.67	269.71	280.88	284.17	287.60	U 2
	U 3	220.76	223.64	226.53	235.20	246.76	258.30	266.98	269.86	272.75	U 3
	M 2	0.5021	0.5076	0.5140	0.5229	0.5263	0.5309	0.5182	0.5162	0.5012	M 2
	M 3	0.8228	0.8278	0.8333	0.8373	0.8051	0.7594	0.7286	0.7187	0.7084	M 3
	M(PR) 2	0.6569	0.6818	0.6965	0.7264	0.7590	0.7785	0.7953	0.7870	0.7748	M(PR) 2
	M(PR) 3	0.2463	0.3550	0.4362	0.5464	0.5541	0.4822	0.4034	0.3507	0.2853	M(PR) 3
	TURN(PR)	85.247	62.556	52.461	41.483	36.035	32.830	31.319	30.159	28.407	TURN(PR)
	PT2	9.398	9.439	9.487	9.570	9.625	9.687	9.625	9.618	9.529	PT2
	PT3	13.176	13.397	13.603	13.996	13.914	13.624	13.466	13.424	13.383	PT3
	PS2	7.911	7.917	7.923	7.943	7.970	7.995	8.015	8.020	8.026	PS2
	PS3	8.448	8.546	8.630	8.843	9.082	9.298	9.459	9.516	9.576	PS3
	TT2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	TT2
	TT3	333.222	331.222	328.833	324.055	321.667	322.778	325.000	326.167	327.611	TT3
STATOR F	PCT SPAN	96.20	92.50	86.80	70.80	49.89	29.71	13.99	9.40	5.00	PCT SPAN
	DIA	0.423	0.426	0.431	0.446	0.466	0.485	0.500	0.504	0.508	DIA
STATION 3	BETA 3	76.820	65.850	58.670	49.570	48.070	53.020	59.260	63.560	69.020	BETA 3
STATION 4	BETA 4	5.600	5.100	6.300	10.000	10.600	9.500	8.500	8.200	7.600	BETA 4
	V 3	282.57	283.22	283.84	282.96	272.33	258.96	250.35	247.71	245.04	V 3
	V 4	165.63	171.34	178.52	190.72	191.14	185.71	185.00	186.14	187.48	V 4
	VZ 3	64.40	115.76	147.53	183.45	181.85	155.59	127.80	110.17	87.66	VZ 3
	VZ 4	164.84	170.65	177.43	187.79	187.79	183.01	182.77	184.02	185.60	VZ 4
	V-THETA 3	275.01	258.17	242.36	215.32	202.47	206.62	214.89	221.54	228.60	V-THETA 3
	V-THETA 4	16.16	15.23	19.59	33.11	35.14	30.63	27.31	26.52	24.76	V-THETA 4
	M 3	0.8228	0.8278	0.8333	0.8373	0.8051	0.7594	0.7286	0.7187	0.7084	M 3
	M 4	0.4622	0.4803	0.5034	0.5439	0.5473	0.5299	0.5259	0.5283	0.5311	M 4
	TURN(PR)	71.119	60.621	52.336	39.552	37.431	43.438	50.642	55.237	61.301	TURN(PR)
	PT3	13.176	13.397	13.603	13.996	13.914	13.624	13.466	13.424	13.383	PT3
	PT4	12.983	13.128	13.314	13.638	13.583	13.321	13.197	13.190	13.183	PT4
	PS3	8.448	8.546	8.630	8.843	9.082	9.298	9.459	9.516	9.576	PS3
	PS4	11.214	11.210	11.199	11.152	11.080	11.002	10.930	10.906	10.879	PS4
	TT3	333.222	331.222	328.833	324.055	321.667	322.778	325.000	326.167	327.611	TT3
	TT4	333.222	331.222	328.833	324.055	321.667	322.778	325.000	326.167	327.611	TT4

Table B-11. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Percent Equivalent Rotor Speed = 99.92 Equivalent Rotor Speed = 9928.5 Equivalent Weight Flow = 15.81 kg/sec
Circumferential Distortion
Streamline Position = 117 deg
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	95.90	91.90	87.00	70.90	49.60	29.01	13.71	9.20	4.50	PCT SPAN
	DIA	0.425	0.430	0.437	0.460	0.490	0.519	0.540	0.547	0.553	DIA
STATION 1	BETA 1	13.300	13.100	13.400	12.600	12.200	11.500	11.800	12.400	13.200	BETA 1
STATION 2	BETA 2	21.300	20.400	19.900	19.900	21.400	23.000	23.700	25.000	27.100	BETA 2
	V 1	86.40	87.66	89.02	92.09	92.84	90.70	89.42	84.65	83.58	V 1
	V 2	133.81	134.19	136.93	134.46	134.73	135.05	131.54	131.43	125.58	V 2
	VZ 1	84.09	85.38	86.60	89.87	90.74	88.88	87.53	82.67	81.47	VZ 1
	VZ 2	124.67	125.77	128.74	126.34	125.18	123.85	119.80	118.43	111.10	VZ 2
	V-THETA 1	19.88	19.87	20.63	20.09	19.62	18.08	18.29	18.18	19.11	V-THETA 1
	V-THETA 2	48.61	46.77	46.60	45.73	49.06	52.57	52.59	55.22	56.86	V-THETA 2
	M 1	0.2556	0.2593	0.2634	0.2726	0.2749	0.2685	0.2646	0.2503	0.2474	M 1
	M 2	0.3994	0.4006	0.4091	0.4014	0.4023	0.4033	0.3924	0.3921	0.3742	M 2
	TURN	-8.00	-7.30	-6.50	-7.28	-9.15	-11.41	-11.77	-12.45	-13.72	TURN
	PT1	8.384	8.391	8.405	8.439	8.453	8.439	8.432	8.391	8.384	PT1
	PT2	8.384	8.391	8.432	8.405	8.419	8.432	8.391	8.391	8.315	PT2
	PS1	8.012	8.008	8.009	8.015	8.021	8.027	8.032	8.033	8.035	PS1
	PS2	7.511	7.513	7.515	7.522	7.531	7.539	7.546	7.547	7.549	PS2
	TT1	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	TT1
	TT2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	TT2
ROTOR F	PCT SPAN	98.99	90.01	85.01	70.01	49.99	30.01	14.99	10.01	5.01	PCT SPAN
	DIA	0.425	0.430	0.436	0.452	0.475	0.497	0.514	0.519	0.525	DIA
STATION 2	BETA 2	21.300	20.400	19.900	19.900	21.400	23.000	23.700	25.000	27.100	BETA 2
STATION 3	BETA 3	72.140	69.030	63.950	56.320	54.870	57.230	62.520	66.940	73.160	BETA 3
	BETA (PR) 2	54.107	54.607	54.542	56.844	58.666	60.302	62.311	62.649	64.289	BETA (PR) 2
	BETA (PR) 3	-35.574	-28.528	-19.040	-5.552	2.187	6.005	8.622	9.008	10.404	BETA (PR) 3
	V 2	133.81	134.19	136.93	134.46	134.73	135.05	131.54	131.43	125.58	V 2
	V 3	301.63	302.77	303.40	302.28	293.98	287.99	279.23	275.00	270.12	V 3
	VZ 2	124.67	125.77	128.74	126.34	125.18	123.85	119.80	118.43	111.10	VZ 2
	VZ 3	92.44	108.27	133.20	167.59	169.08	155.73	128.71	107.62	78.21	VZ 3
	V-THETA 2	48.61	46.77	46.60	45.73	49.06	52.57	52.59	55.22	56.86	V-THETA 2
	V-THETA 3	286.88	282.50	272.50	251.49	240.31	241.92	247.46	252.80	258.39	V-THETA 3
	V(PR) 2	212.6	217.1	221.9	231.1	240.9	250.2	258.2	258.1	256.5	V(PR) 2
	V(PR) 3	114.2	123.8	141.1	168.5	169.5	157.1	130.8	109.6	80.0	V(PR) 3
	VTHETA PR2	-172.3	-177.0	-180.8	-193.4	-205.6	-217.1	-228.3	-228.9	-230.7	VTHETA PR2
	VTHETA PR3	66.1	58.9	46.0	16.3	-6.5	-16.4	-19.5	-17.1	-14.4	VTHETA PR3
	U 2	220.87	223.79	227.37	239.12	254.67	269.71	280.88	284.17	287.60	U 2
	U 3	220.76	223.64	226.53	235.20	246.76	258.30	266.98	269.86	272.75	U 3
	M 2	0.3994	0.4006	0.4091	0.4014	0.4023	0.4033	0.3924	0.3921	0.3742	M 2
	M 3	0.8745	0.8797	0.8837	0.8844	0.8586	0.8364	0.8045	0.7888	0.7712	M 3
	M(PR) 2	0.6348	0.6483	0.6630	0.6898	0.7192	0.7473	0.7703	0.7702	0.7642	M(PR) 2
	M(PR) 3	0.3312	0.3597	0.4109	0.4930	0.4949	0.4563	0.3769	0.3143	0.2285	M(PR) 3
	TURN (PR)	89.467	82.988	73.553	62.370	56.422	54.207	53.581	53.528	53.780	TURN (PR)
	PT2	8.384	8.391	8.432	8.405	8.419	8.432	8.391	8.391	8.315	PT2
	PT3	13.210	13.452	13.672	14.121	14.231	14.355	14.217	14.107	13.976	PT3
	PS2	7.511	7.513	7.515	7.522	7.531	7.539	7.546	7.547	7.549	PS2
	PS3	8.028	8.129	8.227	8.490	8.794	9.077	9.285	9.357	9.431	PS3
	TT2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	TT2
	TT3	341.333	340.389	339.111	336.167	334.722	336.278	338.611	340.055	341.611	TT3
STATOR F	PCT SPAN	96.20	92.50	86.80	70.80	49.89	29.71	13.99	9.40	5.00	PCT SPAN
	DIA	0.423	0.426	0.431	0.446	0.466	0.485	0.500	0.504	0.508	DIA
STATION 3	BETA 3	72.140	69.030	63.950	56.320	54.870	57.230	62.520	66.940	73.160	BETA 3
STATION 4	BETA 4	1.300	1.400	2.400	8.200	9.700	10.500	10.700	9.800	9.100	BETA 4
	V 3	301.63	302.77	303.40	302.28	293.98	287.99	279.23	275.00	270.12	V 3
	V 4	157.28	166.23	175.89	190.34	198.80	203.57	204.80	204.71	204.50	V 4
	VZ 3	92.44	108.27	133.20	167.59	169.08	155.73	128.71	107.62	78.21	VZ 3
	VZ 4	157.24	166.18	175.73	188.36	195.87	200.00	201.02	201.49	201.68	VZ 4
	V-THETA 3	286.88	282.50	272.50	251.49	240.31	241.92	247.46	252.80	258.39	V-THETA 3
	V-THETA 4	3.57	4.06	7.37	27.14	33.48	37.07	37.98	34.80	32.30	V-THETA 4
	M 3	0.8745	0.8797	0.8837	0.8844	0.8586	0.8364	0.8045	0.7888	0.7712	M 3
	M 4	0.4325	0.4588	0.4877	0.5323	0.5587	0.5716	0.5731	0.5716	0.5696	M 4
	TURN (PR)	70.708	67.514	61.519	48.103	45.133	46.654	51.713	57.031	63.964	TURN (PR)
	PT3	13.210	13.452	13.672	14.121	14.231	14.355	14.217	14.107	13.976	PT3
	PT4	12.886	13.086	13.321	13.693	13.886	13.927	13.852	13.803	13.748	PT4
	PS3	8.028	8.129	8.227	8.490	8.794	9.077	9.285	9.357	9.431	PS3
	PS4	11.332	11.327	11.321	11.290	11.234	11.160	11.086	11.061	11.033	PS4
	TT3	341.333	340.389	339.111	336.167	334.722	336.278	338.611	340.055	341.611	TT3
	TT4	341.333	340.389	339.111	336.167	334.722	336.278	338.611	340.055	341.611	TT4

Table B-11. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Percent Equivalent Rotor Speed = 99.92 Equivalent Rotor Speed = 9928.5 Equivalent Weight Flow = 15.81 kg/sec
Circumferential Distortion
Streamline Position = 147 deg
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	95.90	91.90	87.00	70.90	49.60	29.01	13.71	9.20	4.50	PCT SPAN
	DIA	0.425	0.430	0.437	0.460	0.490	0.519	0.540	0.547	0.553	DIA
STATION 1	BETA 1	3.400	3.200	3.150	2.550	2.000	1.900	2.400	2.550	2.600	BETA 1
STATION 2	BETA 2	17.400	18.000	17.800	18.300	19.700	20.000	19.800	20.300	23.800	BETA 2
	V 1	88.68	94.88	95.84	97.82	98.66	95.63	93.52	89.49	88.35	V 1
	V 2	123.87	128.04	132.42	131.54	130.03	133.51	131.20	128.56	126.37	V 2
	VZ 1	88.52	94.73	95.69	97.72	98.60	95.58	93.44	89.41	88.26	VZ 1
	VZ 2	118.20	121.76	126.06	124.79	122.17	124.97	122.75	119.83	114.88	VZ 2
	V-THETA 1	5.26	5.30	5.27	4.35	3.44	3.17	3.92	3.98	4.01	V-THETA 1
	V-THETA 2	37.04	39.56	40.47	41.27	43.74	45.48	44.19	44.33	50.67	V-THETA 2
	M 1	0.2624	0.2810	0.2839	0.2899	0.2924	0.2833	0.2769	0.2648	0.2614	M 1
	M 2	0.3689	0.3817	0.3952	0.3924	0.3878	0.3985	0.3914	0.3833	0.3766	M 2
	TURN	-14.00	-14.80	-14.65	-15.74	-17.66	-18.02	-17.28	-17.62	-21.04	TURN
	PT1	8.336	8.398	8.412	8.446	8.474	8.460	8.453	8.419	8.412	PT1
	PT2	8.322	8.377	8.439	8.432	8.419	8.474	8.446	8.412	8.384	PT2
	PS1	7.946	7.950	7.954	7.968	7.986	8.001	8.015	8.018	8.021	PS1
	PS2	7.575	7.576	7.578	7.583	7.589	7.595	7.599	7.601	7.602	PS2
	TT1	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	TT1
	TT2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	TT2
ROTOR F	PCT SPAN	94.99	90.01	85.01	70.01	49.99	30.01	14.99	10.01	5.01	PCT SPAN
	DIA	0.425	0.430	0.436	0.452	0.475	0.497	0.514	0.519	0.525	DIA
STATION 2	BETA 2	17.400	18.000	17.800	18.300	19.700	20.000	19.800	20.300	23.800	BETA 2
STATION 3	BETA 3	79.570	73.250	68.330	57.950	55.340	57.130	60.130	63.120	69.300	BETA 3
	BETA (PR) 2	57.258	56.538	56.000	57.759	59.922	60.868	62.588	63.452	64.133	BETA (PR) 2
	BETA (PR) 3	-54.185	-36.128	-24.378	-5.772	4.661	11.091	13.873	14.140	14.509	BETA (PR) 3
	V 2	123.87	128.04	132.42	131.54	130.03	133.51	131.20	128.56	126.37	V 2
	V 3	301.42	299.46	297.34	296.30	284.13	273.22	269.97	268.61	265.82	V 3
	VZ 2	118.20	121.76	126.06	124.79	122.17	124.97	122.75	119.83	114.88	VZ 2
	VZ 3	54.55	86.26	109.78	157.20	161.51	148.15	134.29	121.30	93.88	VZ 3
	V-THETA 2	37.04	39.56	40.47	41.27	43.74	45.48	44.19	44.33	50.67	V-THETA 2
	V-THETA 3	296.36	286.61	276.28	251.09	233.60	229.26	233.81	239.30	248.45	V-THETA 3
	V(PR) 2	218.6	220.8	225.4	234.0	243.9	257.0	267.0	268.5	263.7	V(PR) 2
	V(PR) 3	93.5	107.2	120.7	158.1	162.3	151.4	139.0	125.8	97.6	V(PR) 3
	VTHETA PR2	-183.8	-184.2	-186.9	-197.8	-210.9	-224.2	-236.7	-239.8	-236.9	VTHETA PR2
	VTHETA PR3	75.6	63.0	49.7	15.9	-13.2	-29.0	-33.2	-30.6	-24.3	VTHETA PR3
	U 2	220.87	223.79	227.37	239.12	254.67	269.71	280.88	284.17	287.60	U 2
	U 3	220.76	223.64	226.53	235.20	246.76	258.30	266.98	269.86	272.75	U 3
	M 2	0.3689	0.3817	0.3952	0.3924	0.3878	0.3985	0.3914	0.3833	0.3766	M 2
	M 3	0.8688	0.8642	0.8600	0.8628	0.8261	0.7899	0.7755	0.7693	0.7587	M 3
	M(PR) 2	0.6509	0.6583	0.6728	0.6981	0.7274	0.7670	0.7965	0.8005	0.7859	M(PR) 2
	M(PR) 3	0.2695	0.3094	0.3490	0.4604	0.4719	0.4378	0.3992	0.3602	0.2785	M(PR) 3
	TURN (PR)	111.228	92.499	80.344	63.506	55.210	49.704	48.633	49.229	49.543	TURN (PR)
	PT2	8.322	8.377	8.439	8.432	8.419	8.474	8.446	8.412	8.384	PT2
	PT3	13.210	13.321	13.424	13.900	13.852	13.755	13.845	13.859	13.817	PT3
	PS2	7.575	7.576	7.578	7.583	7.589	7.595	7.599	7.601	7.602	PS2
	PS3	8.076	8.183	8.283	8.552	8.852	9.114	9.304	9.369	9.436	PS3
	TT2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	TT2
	TT3	344.722	343.444	341.500	337.167	334.555	334.889	337.889	339.278	340.667	TT3
STATOR F	PCT SPAN	96.20	92.50	86.80	70.80	49.89	29.71	13.99	9.40	5.00	PCT SPAN
	DIA	0.423	0.426	0.431	0.446	0.466	0.485	0.500	0.504	0.508	DIA
STATION 3	BETA 3	79.570	73.250	68.330	57.950	55.340	57.130	60.130	63.120	69.300	BETA 3
STATION 4	BETA 4	2.000	1.300	-0.200	5.300	7.600	9.400	10.200	9.500	8.400	BETA 4
	V 3	301.42	299.46	297.34	296.30	284.13	273.22	269.97	268.61	265.82	V 3
	V 4	157.49	164.64	169.82	179.41	180.95	189.06	194.83	197.15	199.04	V 4
	VZ 3	54.55	86.26	109.78	157.20	161.51	148.15	134.29	121.30	93.88	VZ 3
	VZ 4	157.39	164.60	169.81	178.60	179.27	186.37	191.55	194.22	196.66	VZ 4
	V-THETA 3	296.36	286.61	276.28	251.09	233.60	229.26	233.81	239.30	248.45	V-THETA 3
	V-THETA 4	5.50	3.74	-0.59	16.57	23.92	30.85	38.46	32.50	29.04	V-THETA 4
	M 3	0.8688	0.8642	0.8600	0.8628	0.8261	0.7899	0.7755	0.7693	0.7587	M 3
	M 4	0.4309	0.4522	0.4684	0.4994	0.5060	0.5296	0.5442	0.5498	0.5542	M 4
	TURN (PR)	77.489	71.854	68.503	52.633	47.702	47.653	49.816	53.497	60.783	TURN (PR)
	PT3	13.210	13.321	13.424	13.900	13.852	13.755	13.845	13.859	13.817	PT3
	PT4	12.907	13.066	13.183	13.390	13.355	13.472	13.514	13.534	13.541	PT4
	PS3	8.076	8.183	8.283	8.552	8.852	9.114	9.304	9.369	9.436	PS3
	PS4	11.361	11.356	11.343	11.292	11.214	11.130	11.049	11.021	10.991	PS4
	TT3	344.722	343.444	341.500	337.167	334.555	334.889	337.889	339.278	340.667	TT3
	TT4	344.722	343.444	341.500	337.167	334.555	334.889	337.889	339.278	340.667	TT4

ORIGINAL PAGE IS
OF POOR QUALITY

Table B-11. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Percent Equivalent Rotor Speed = 99.92 Equivalent Rotor Speed = 9928.5 Equivalent Weight Flow = 15.81 kg/sec
Circumferential Distortion
Streamline Position = 177 deg
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	95.90	91.90	87.00	70.90	49.60	29.01	13.71	9.20	4.50	PCT SPAN
	DIA	0.425	0.430	0.437	0.460	0.490	0.519	0.540	0.547	0.553	DIA
STATION 1	BETA 1	-10.500	-10.500	-10.500	-10.500	-10.500	-10.500	-10.500	-10.500	-10.500	BETA 1
STATION 2	BETA 2	12.500	13.000	14.200	13.100	15.000	15.800	13.800	19.300	17.200	BETA 2
	V 1	91.97	93.90	95.71	96.83	97.79	97.39	97.88	94.92	91.86	V 1
	V 2	121.35	126.63	128.69	128.63	130.03	131.92	131.86	130.37	125.18	V 2
	VZ 1	90.43	92.33	94.11	95.21	96.15	95.76	96.24	93.33	90.32	VZ 1
	VZ 2	118.47	123.37	124.73	125.18	125.33	126.41	127.29	122.28	118.74	VZ 2
	V-THETA 1	-16.76	-17.11	-17.44	-17.65	-17.82	-17.75	-17.84	-17.30	-16.74	V-THETA 1
	V-THETA 2	26.26	28.48	31.56	29.13	33.58	35.77	31.26	42.82	36.75	V-THETA 2
	M 1	0.2723	0.2781	0.2835	0.2869	0.2898	0.2886	0.2900	0.2811	0.2719	M 1
	M 2	0.3612	0.3774	0.3837	0.3835	0.3878	0.3936	0.3934	0.3889	0.3729	M 2
	TURN	-23.00	-23.50	-24.70	-23.59	-25.47	-26.23	-24.22	-29.68	-27.58	TURN
	PT1	8.405	8.425	8.446	8.467	8.487	8.494	8.508	8.481	8.453	PT1
	PT2	8.356	8.425	8.453	8.453	8.474	8.501	8.501	8.481	8.412	PT2
	PS1	7.983	7.985	7.988	7.997	8.007	8.017	8.026	8.028	8.030	PS1
	PS2	7.636	7.637	7.637	7.637	7.639	7.640	7.641	7.641	7.642	PS2
	TT1	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	TT1
	TT2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	TT2
ROTOR F	PCT SPAN	94.99	90.01	85.01	70.01	49.99	30.01	14.99	10.01	5.01	PCT SPAN
	DIA	0.425	0.430	0.436	0.452	0.475	0.497	0.514	0.519	0.525	DIA
STATION 2	BETA 2	12.500	13.000	14.200	13.100	15.000	15.800	13.800	19.300	17.200	BETA 2
STATION 3	BETA 3	76.490	71.030	66.300	55.540	52.450	54.490	57.500	63.210	63.350	BETA 3
	BETA (PR) 2	58.668	57.720	57.502	59.199	60.452	61.615	62.982	63.132	64.670	BETA (PR) 2
	BETA (PR) 3	-43.976	-30.176	-20.709	-4.357	5.319	11.906	14.192	12.443	14.589	BETA (PR) 3
	V 2	121.35	126.63	128.69	128.63	130.03	131.92	131.86	130.37	125.18	V 2
	V 3	295.69	295.75	296.69	301.06	290.63	276.12	273.03	272.32	270.28	V 3
	VZ 2	118.47	123.37	124.73	125.18	125.33	126.41	127.29	122.28	118.74	VZ 2
	VZ 3	69.05	96.08	119.23	170.31	177.02	160.21	146.48	122.60	121.07	VZ 3
	V-THETA 2	26.26	28.48	31.56	29.13	33.58	35.77	31.26	42.82	36.75	V-THETA 2
	V-THETA 3	287.39	279.51	271.61	248.17	230.28	224.52	229.93	242.81	241.24	V-THETA 3
	V (PR) 2	227.8	231.0	232.2	244.5	254.3	266.2	280.6	270.9	277.9	V (PR) 2
	V (PR) 3	96.3	111.6	127.6	170.9	178.1	164.2	151.8	126.2	125.9	V (PR) 3
	VTHETA PR2	-194.6	-195.3	-195.8	-210.0	-221.1	-233.9	-249.6	-241.3	-250.8	VTHETA PR2
	VTHETA PR3	66.6	55.9	45.1	13.0	-16.5	-33.8	-37.0	-27.1	-31.5	VTHETA PR3
	U 2	220.87	223.79	227.37	239.12	254.67	269.71	280.88	284.17	287.60	U 2
	U 3	220.76	223.64	226.53	235.20	246.76	258.30	266.98	269.86	272.75	U 3
	M 2	0.3612	0.3774	0.3837	0.3835	0.3878	0.3936	0.3934	0.3889	0.3729	M 2
	M 3	0.8487	0.8506	0.8563	0.8762	0.8451	0.7971	0.7824	0.7784	0.7699	M 3
	M (PR) 2	0.6782	0.6885	0.6922	0.7290	0.7584	0.7942	0.8371	0.8082	0.8280	M (PR) 2
	M (PR) 3	0.2765	0.3211	0.3683	0.4975	0.5178	0.4741	0.4351	0.3608	0.3586	M (PR) 3
	TURN (PR)	102.417	87.743	78.181	63.532	55.084	49.640	48.710	50.596	50.002	TURN (PR)
	PT2	8.356	8.425	8.453	8.453	8.474	8.501	8.501	8.481	8.412	PT2
	PT3	13.121	13.314	13.548	14.272	14.286	14.003	14.072	14.114	14.100	PT3
	PS2	7.636	7.637	7.637	7.637	7.639	7.640	7.641	7.641	7.642	PS2
	PS3	8.792	8.296	8.392	8.657	8.953	9.213	9.393	9.458	9.526	PS3
	TT2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	TT2
	TT3	345.611	344.333	342.555	338.889	336.333	336.555	340.111	341.500	343.000	TT3
STATOR F	PCT SPAN	96.20	92.50	86.80	70.80	49.89	29.71	13.99	9.40	5.00	PCT SPAN
	DIA	0.423	0.426	0.431	0.446	0.466	0.485	0.500	0.504	0.508	DIA
STATION 3	BETA 3	76.490	71.030	66.300	55.540	52.450	54.490	57.500	63.210	63.350	BETA 3
STATION 4	BETA 4	-2.500	-4.700	-6.400	0.600	5.500	7.800	7.900	7.400	7.300	BETA 4
	V 3	295.69	295.75	296.69	301.06	290.63	276.12	273.03	272.32	270.28	V 3
	V 4	162.11	167.82	175.70	190.13	194.89	198.14	206.57	208.78	210.21	V 4
	VZ 3	69.05	96.08	119.23	170.31	177.02	160.21	146.48	122.60	121.07	VZ 3
	VZ 4	161.96	167.25	174.60	190.08	193.89	196.14	204.38	206.80	208.25	VZ 4
	V-THETA 3	287.39	279.51	271.61	248.17	230.28	224.52	229.93	242.81	241.24	V-THETA 3
	V-THETA 4	-7.07	-13.75	-19.58	1.99	18.67	26.87	28.36	26.86	26.68	V-THETA 4
	M 3	0.8487	0.8506	0.8563	0.8762	0.8451	0.7971	0.7824	0.7784	0.7699	M 3
	M 4	0.4435	0.4606	0.4846	0.5295	0.5457	0.5551	0.5771	0.5824	0.5853	M 4
	TURN (PR)	78.887	75.623	72.671	54.921	46.910	46.608	49.477	55.685	55.905	TURN (PR)
	PT3	13.121	13.314	13.548	14.272	14.286	14.003	14.072	14.114	14.100	PT3
	PT4	12.893	13.024	13.210	13.555	13.603	13.576	13.679	13.693	13.679	PT4
	PS3	8.792	8.296	8.392	8.657	8.953	9.213	9.393	9.458	9.526	PS3
	PS4	11.265	11.261	11.250	11.199	11.110	11.012	10.916	10.883	10.848	PS4
	TT3	345.611	344.333	342.555	338.889	336.333	336.555	340.111	341.500	343.000	TT3
	TT4	345.611	344.333	342.555	338.889	336.333	336.555	340.111	341.500	343.000	TT4

Table B-11. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Percent Equivalent Rotor Speed = 99.92 Equivalent Rotor Speed = 9928.5 Equivalent Weight Flow = 15.81 kg/sec
Circumferential Distortion
Streamline Position = 207 deg
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	95.90	91.90	87.00	70.90	49.60	29.01	13.71	9.20	4.50	PCT SPAN
	DIA	0.425	0.430	0.437	0.460	0.490	0.519	0.540	0.547	0.553	DIA
STATION 1	BETA 1	-16.000	-15.200	-14.100	-11.500	-10.800	-10.800	-10.800	-11.400	-12.400	BETA 1
STATION 2	BETA 2	6.500	6.500	6.500	7.000	7.600	8.600	8.800	8.700	10.600	BETA 2
	V 1	87.11	87.64	90.24	92.72	92.01	92.80	97.98	96.34	92.57	V 1
	V 2	105.72	108.16	116.36	116.17	117.55	121.15	122.57	120.91	111.82	V 2
	VZ 1	83.74	84.57	87.52	90.86	90.38	91.15	96.24	94.44	90.41	VZ 1
	VZ 2	105.04	107.45	115.59	115.21	116.26	119.27	120.38	118.71	109.09	VZ 2
	V-THETA 1	-24.01	-22.98	-21.98	-18.49	-17.24	-17.39	-18.36	-19.04	-19.88	V-THETA 1
	V-THETA 2	11.97	12.24	13.17	14.15	15.51	18.04	18.64	18.16	20.42	V-THETA 2
	M 1	0.2577	0.2593	0.2671	0.2745	0.2724	0.2747	0.2903	0.2854	0.2741	M 1
	M 2	0.3137	0.3211	0.3460	0.3454	0.3496	0.3606	0.3650	0.3599	0.3322	M 2
	TURN	-22.50	-21.70	-20.60	-18.49	-18.38	-19.36	-19.55	-20.04	-22.92	TURN
	PT1	8.419	8.425	8.453	8.487	8.494	8.515	8.577	8.563	8.529	PT1
	PT2	8.343	8.370	8.467	8.467	8.487	8.536	8.556	8.536	8.425	PT2
	PS1	8.039	8.041	8.044	8.055	8.068	8.080	8.090	8.092	8.095	PS1
	PS2	7.793	7.793	7.794	7.796	7.799	7.802	7.804	7.805	7.806	PS2
	TT1	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	TT1
	TT2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	TT2
ROTOR F	PCT SPAN	94.99	90.01	85.01	70.01	49.49	30.01	14.99	10.01	5.01	PCT SPAN
	DIA	0.425	0.430	0.436	0.452	0.475	0.497	0.514	0.519	0.525	DIA
STATION 2	BETA 2	6.500	6.500	6.500	7.000	7.600	8.600	8.800	8.700	10.600	BETA 2
STATION 3	BETA 3	67.670	64.400	60.550	51.580	48.560	49.840	53.710	55.230	57.990	BETA 3
	BETA (PR) 2	63.305	63.072	61.646	62.882	64.076	64.644	65.343	65.951	67.790	BETA (PR) 2
	BETA (PR) 3	-23.891	-17.536	-11.494	-0.769	8.284	14.026	15.703	16.302	16.815	BETA (PR) 3
	V 2	105.72	108.16	116.36	116.17	117.55	121.15	122.57	120.91	111.82	V 2
	V 3	292.07	292.56	293.99	303.51	291.87	279.52	275.03	273.59	271.06	V 3
	VZ 2	105.04	107.45	115.59	115.21	116.26	119.27	120.38	118.71	109.09	VZ 2
	VZ 3	110.84	126.27	144.50	188.55	193.04	180.02	162.50	155.73	143.41	VZ 3
	V-THETA 2	11.97	12.24	13.17	14.15	15.51	18.04	18.64	18.16	20.42	V-THETA 2
	V-THETA 3	269.86	263.54	255.92	237.73	218.66	213.33	221.29	224.31	229.41	V-THETA 3
	V(PR) 2	233.8	237.3	243.4	252.8	266.0	278.7	288.9	291.6	288.9	V(PR) 2
	V(PR) 3	122.0	133.2	147.6	188.7	195.4	186.1	169.6	163.1	150.7	V(PR) 3
	VTHETA PR2	-208.9	-211.5	-214.2	-225.0	-239.2	-251.7	-262.2	-266.0	-267.2	VTHETA PR2
	VTHETA PR3	49.1	39.9	29.4	2.5	-28.1	-45.0	-45.7	-45.5	-43.3	VTHETA PR3
	U 2	220.87	223.79	227.37	239.12	254.67	269.71	280.88	284.17	287.60	U 2
	U 3	220.76	223.64	226.53	235.20	246.76	258.30	266.98	269.86	272.75	U 3
	M 2	0.3137	0.3211	0.3460	0.3454	0.3496	0.3606	0.3650	0.3599	0.3322	M 2
	M 3	0.8374	0.8403	0.8467	0.8822	0.8469	0.8061	0.7867	0.7803	0.7703	M 3
	M(PR) 2	0.6939	0.7044	0.7238	0.7517	0.7913	0.8297	0.8601	0.8680	0.8584	M(PR) 2
	M(PR) 3	0.3499	0.3825	0.4252	0.5485	0.5669	0.5367	0.4851	0.4652	0.4284	M(PR) 3
	TURN (PR)	87.029	80.507	73.121	63.631	55.752	50.563	49.577	49.588	50.925	TURN (PR)
	PT2	8.343	8.370	8.467	8.467	8.487	8.536	8.556	8.536	8.425	PT2
	PT3	13.169	13.355	13.583	14.500	14.410	14.183	14.169	14.169	14.121	PT3
	PS2	7.793	7.793	7.794	7.796	7.799	7.802	7.804	7.805	7.806	PS2
	PS3	8.319	8.411	8.498	8.739	9.014	9.248	9.418	9.477	9.536	PS3
	TT2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	TT2
	TT3	345.167	344.222	343.000	340.389	338.000	338.111	341.778	343.167	344.667	TT3
STATOR F	PCT SPAN	96.20	92.50	86.80	70.80	49.89	29.71	13.99	9.40	5.00	PCT SPAN
	DIA	0.423	0.426	0.431	0.446	0.466	0.485	0.500	0.504	0.508	DIA
STATION 3	BETA 3	67.670	64.400	60.550	51.580	48.560	49.840	53.710	55.230	57.990	BETA 3
STATION 4	BETA 4	-1.300	-2.700	-7.200	-5.400	2.200	5.300	6.800	6.600	5.400	BETA 4
	V 3	292.07	292.56	293.99	303.51	291.87	279.52	275.03	273.59	271.06	V 3
	V 4	163.08	169.34	177.66	191.49	196.72	198.55	206.03	208.91	210.15	V 4
	VZ 3	110.84	126.27	144.50	188.55	193.04	180.02	162.50	155.73	143.41	VZ 3
	VZ 4	163.04	169.15	176.25	190.60	196.47	197.53	204.36	207.28	208.96	VZ 4
	V-THETA 3	269.86	263.54	255.92	237.73	218.66	213.33	221.29	224.31	229.41	V-THETA 3
	V-THETA 4	-3.70	-7.98	-22.27	-18.02	7.55	18.32	24.37	23.98	19.75	V-THETA 4
	M 3	0.8374	0.8403	0.8467	0.8822	0.8469	0.8061	0.7867	0.7803	0.7703	M 3
	M 4	0.4465	0.4651	0.4899	0.5322	0.5496	0.5550	0.5740	0.5813	0.5836	M 4
	TURN (PR)	68.811	66.965	67.716	56.959	46.317	44.453	46.779	48.482	52.424	TURN (PR)
	PT3	13.169	13.355	13.583	14.500	14.410	14.183	14.169	14.169	14.121	PT3
	PT4	12.969	13.114	13.314	13.652	13.721	13.652	13.728	13.762	13.741	PT4
	PS3	8.319	8.411	8.498	8.739	9.014	9.248	9.418	9.477	9.536	PS3
	PS4	11.310	11.308	11.299	11.257	11.174	11.074	10.980	10.947	10.911	PS4
	TT3	345.167	344.222	343.000	340.389	338.000	338.111	341.778	343.167	344.667	TT3
	TT4	345.167	344.222	343.000	340.389	338.000	338.111	341.778	343.167	344.667	TT4

ORIGINAL PAGE IS
OF POOR QUALITY

Table B-11. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Percent Equivalent Rotor Speed = 91.92 Equivalent Rotor Speed = 9928.5 Equivalent Weight Flow = 15.81 kg/sec
Circumferential Distortion
Streamline Position = 237 deg
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	95.90	91.90	87.00	70.90	49.60	29.01	13.71	9.20	4.50	PCT SPAN
	DIA	0.425	0.430	0.437	0.460	0.490	0.519	0.540	0.547	0.553	DIA
STATION 1	BETA 1	-23.500	-22.000	-20.400	-19.000	-18.400	-17.250	-16.000	-16.500	-17.600	BETA 1
STATION 2	BETA 2	6.100	6.100	5.800	5.600	6.500	7.500	7.900	7.700	8.100	BETA 2
	V 1	79.95	82.14	83.32	78.79	82.89	83.77	85.73	82.29	73.48	V 1
	V 2	87.47	95.54	100.98	101.83	104.08	107.48	107.68	106.53	96.24	V 2
	VZ 1	73.32	76.16	78.09	74.50	78.65	80.00	82.41	78.90	70.04	VZ 1
	VZ 2	86.97	95.00	100.44	101.26	103.17	106.10	105.99	104.84	94.56	VZ 2
	V-THETA 1	-31.88	-30.77	-29.04	-25.65	-26.16	-24.84	-23.63	-23.37	-22.22	V-THETA 1
	V-THETA 2	9.29	10.15	10.20	9.93	11.75	13.97	14.71	14.18	13.46	V-THETA 2
	M 1	0.2362	0.2428	0.2463	0.2328	0.2450	0.2477	0.2535	0.2432	0.2169	M 1
	M 2	0.2588	0.2830	0.2994	0.3020	0.3087	0.3190	0.3196	0.3162	0.2851	M 2
	TURN	-29.60	-28.10	-26.20	-24.60	-24.88	-24.72	-23.85	-24.15	-25.64	TURN
	PT1	8.522	8.543	8.556	8.529	8.577	8.598	8.625	8.598	8.529	PT1
	PT2	8.412	8.487	8.543	8.550	8.570	8.605	8.605	8.591	8.481	PT2
	PS1	8.197	8.199	8.203	8.213	8.226	8.239	8.248	8.251	8.254	PS1
	PS2	8.029	8.028	8.028	8.026	8.022	8.019	8.017	8.016	8.015	PS2
	TT1	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	TT1
	TT2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	TT2
ROTOR F	PCT SPAN	94.99	90.01	85.01	70.01	49.99	30.01	14.99	10.01	5.01	PCT SPAN
	DIA	0.425	0.430	0.436	0.452	0.475	0.497	0.514	0.519	0.525	DIA
STATION 2	BETA 2	6.100	6.100	5.800	5.600	6.500	7.500	7.900	7.700	8.100	BETA 2
STATION 3	BETA 3	66.270	62.350	58.780	50.670	46.090	45.890	49.580	50.750	51.970	BETA 3
	BETA (PR) 2	67.653	66.027	65.178	66.163	66.989	67.468	68.288	68.778	70.970	BETA (PR) 2
	BETA (PR) 3	-20.744	-18.067	-8.808	1.810	8.9[illegible]	13.737	14.710	15.148	15.760	BETA (PR) 3
	V 2	87.47	95.54	100.98	101.83	104.08	107.48	107.68	106.53	96.24	V 2
	V 3	289.69	291.00	292.46	296.47	297.76	291.29	287.21	286.02	284.38	V 3
	VZ 2	86.97	95.00	100.44	101.26	103.17	106.10	105.99	104.84	94.56	VZ 2
	VZ 3	116.43	134.87	151.53	187.85	206.35	202.43	185.83	180.55	174.75	VZ 3
	V-THETA 2	9.29	10.15	10.20	9.93	11.75	13.97	14.71	14.18	13.46	V-THETA 2
	V-THETA 3	264.86	257.43	250.01	229.26	214.36	208.82	218.19	220.98	223.43	V-THETA 3
	V (PR) 2	228.8	233.8	239.3	250.6	264.0	277.1	286.8	289.9	290.2	V (PR) 2
	V (PR) 3	125.4	139.8	153.5	188.1	209.2	209.0	193.0	188.1	182.[illegible]	V (PR) 3
	VTHETA PR2	-211.6	-213.6	-217.2	-229.2	-242.9	-255.7	-266.2	-270.0	-275.1	VTHETA PR2
	VTHETA PR3	44.1	33.8	23.5	-5.9	-32.4	-49.5	-48.8	-48.9	-49.3	VTHETA PR3
	U 2	220.87	223.79	227.37	239.12	254.67	269.71	280.88	284.17	287.60	U 2
	U 3	220.76	223.64	226.53	235.20	246.76	258.30	266.98	269.86	272.75	U 3
	M 2	0.2588	0.2830	0.2994	0.3020	0.3087	0.3190	0.3196	0.3162	0.2851	M 2
	M 3	0.8308	0.8365	0.8429	0.8600	0.8666	0.8448	0.8259	0.8201	0.8128	M 3
	M (PR) 2	0.6767	0.6925	0.7094	0.7431	0.7832	0.8224	0.8512	0.8604	0.8598	M (PR) 2
	M (PR) 3	0.3595	0.4020	0.4426	0.5456	0.6088	0.6063	0.5551	0.5392	0.5222	M (PR) 3
	TURN (PR)	88.247	80.010	73.970	64.337	58.029	53.684	53.523	53.578	55.173	TURN (PR)
	PT2	8.412	8.487	8.543	8.550	8.570	8.605	8.605	8.591	8.481	PT2
	PT3	12.686	12.893	13.107	13.707	14.224	14.272	14.258	14.265	14.252	PT3
	PS2	8.029	8.028	8.028	8.026	8.022	8.019	8.017	8.016	8.015	PS2
	PS3	8.068	8.152	8.232	8.457	8.716	8.947	9.114	9.172	9.231	PS3
	TT2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	TT2
	TT3	344.333	343.278	342.111	339.444	337.944	338.055	342.000	343.444	344.889	TT3
STATOR F	PCT SPAN	96.20	92.50	86.80	70.80	49.89	29.71	13.99	9.40	5.00	PCT SPAN
	DIA	0.423	0.426	0.431	0.446	0.466	0.485	0.500	0.504	0.508	DIA
STATION 3	BETA 3	66.270	62.350	58.780	50.670	46.090	45.890	49.580	50.750	51.970	BETA 3
STATION 4	BETA 4	5.600	4.400	4.300	-6.500	1.700	4.800	6.600	6.500	6.500	BETA 4
	V 3	289.69	291.00	292.46	296.47	297.76	291.29	287.21	286.02	284.38	V 3
	V 4	145.97	154.57	164.98	185.73	197.13	200.41	213.95	218.01	221.27	V 4
	VZ 3	116.43	134.87	151.53	187.85	206.35	202.43	185.83	180.55	174.75	VZ 3
	VZ 4	145.27	154.11	164.51	184.50	196.95	199.53	212.29	216.35	219.58	VZ 4
	V-THETA 3	264.86	257.43	250.01	229.26	214.36	208.82	218.19	220.98	223.43	V-THETA 3
	V-THETA 4	14.24	11.86	12.37	-21.02	5.85	16.76	24.56	24.65	25.02	V-THETA 4
	M 3	0.8308	0.8365	0.8429	0.8600	0.8666	0.8448	0.8259	0.8201	0.8128	M 3
	M 4	0.3986	0.4236	0.4540	0.5161	0.5509	0.5606	0.5973	0.6081	0.6166	M 4
	TURN (PR)	60.503	57.808	54.446	57.149	44.347	41.001	42.844	44.095	45.292	TURN (PR)
	PT3	12.686	12.893	13.107	13.707	14.224	14.272	14.258	14.265	14.252	PT3
	PT4	12.480	12.652	12.873	13.348	13.569	13.528	13.776	13.845	13.886	PT4
	PS3	8.068	8.152	8.232	8.457	8.716	8.947	9.114	9.172	9.231	PS3
	PS4	11.185	11.183	11.175	11.131	11.040	10.929	10.823	10.785	10.745	PS4
	TT3	344.333	343.278	342.111	339.444	337.944	338.055	342.000	343.444	344.889	TT3
	TT4	344.333	343.278	342.111	339.444	337.944	338.055	342.000	343.444	344.889	TT4

Table B-11. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Percent Equivalent Rotor Speed = 99.92 Equivalent Rotor Speed = 9928.5 Equivalent Weight Flow = 15.81 kg/sec
Circumferential Distortion
Streamline Position = 267 deg
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	95.90	91.90	87.00	70.90	49.60	29.01	13.71	9.20	4.50	PCT SPAN
	DIA	0.425	0.430	0.437	0.460	0.490	0.519	0.540	0.547	0.553	DIA
STATION 1	BETA 1	-27.300	-26.600	-25.800	-25.000	-23.200	-22.750	-23.700	-24.900	-26.200	BETA 1
STATION 2	BETA 2	2.000	2.200	2.400	2.900	4.300	4.200	4.600	4.600	4.500	BETA 2
	V 1	96.16	98.46	96.84	93.60	87.10	95.89	101.13	90.37	88.66	V 1
	V 2	80.87	84.98	91.78	89.94	96.60	100.32	112.21	109.09	106.39	V 2
	VZ 1	85.45	88.04	87.18	84.83	80.05	88.43	92.60	81.97	79.55	VZ 1
	VZ 2	80.82	84.92	91.68	89.75	96.10	99.61	111.14	107.99	105.25	VZ 2
	V-THETA 1	-44.10	-44.09	-42.15	-39.56	-34.31	-37.08	-40.65	-38.05	-39.14	V-THETA 1
	V-THETA 2	2.82	3.26	3.84	4.55	7.23	7.31	8.94	8.69	8.28	V-THETA 2
	M 1	0.2848	0.2918	0.2869	0.2772	0.2576	0.2841	0.2999	0.2674	0.2623	M 1
	M 2	0.2390	0.2513	0.2717	0.2662	0.2862	0.2974	0.3334	0.3239	0.3157	M 2
	TURN	-29.30	-28.80	-28.20	-27.90	-27.49	-26.93	-28.27	-29.47	-30.67	TURN
	PT1	8.936	8.963	8.949	8.929	8.881	8.984	9.053	8.943	8.929	PT1
	PT2	8.756	8.791	8.853	8.825	8.881	8.908	9.039	8.998	8.963	PT2
	PS1	8.446	8.449	8.452	8.465	8.490	8.494	8.505	8.509	8.512	PS1
	PS2	8.415	8.413	8.410	8.401	8.390	8.378	8.370	8.367	8.365	PS2
	TT1	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	TT1
	TT2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	TT2
ROTOR F	PCT SPAN	94.99	90.01	85.01	70.01	49.99	30.01	14.99	10.01	5.01	PCT SPAN
	DIA	0.425	0.430	0.436	0.452	0.475	0.497	0.514	0.519	0.525	DIA
STATION 2	BETA 2	2.000	2.200	2.400	2.900	4.300	4.200	4.600	4.600	4.500	BETA 2
STATION 3	BETA 3	58.890	55.710	52.530	45.810	43.770	45.320	48.420	49.250	50.920	BETA 3
	BETA (PR) 2	69.663	68.940	67.698	69.063	68.775	69.213	67.770	68.595	69.353	BETA (PR) 2
	BETA (PR) 3	-15.831	-10.974	-6.595	1.828	7.837	11.310	11.633	11.821	11.558	BETA (PR) 3
	V 2	80.87	84.98	91.78	89.94	96.60	100.32	112.21	109.09	106.39	V 2
	V 3	311.74	312.53	313.34	318.25	312.15	303.78	302.46	302.54	302.12	V 3
	VZ 2	80.82	84.92	91.68	89.75	96.10	99.61	111.14	107.99	105.25	VZ 2
	VZ 3	160.73	175.74	190.52	221.76	225.23	213.26	200.29	197.00	189.95	VZ 3
	V-THETA 2	2.82	3.26	3.84	4.55	7.23	7.31	8.94	8.69	8.28	V-THETA 2
	V-THETA 3	266.34	257.72	248.56	228.12	215.76	215.65	225.75	228.63	233.90	V-THETA 3
	V(PR) 2	232.5	236.3	241.6	251.2	265.5	280.8	294.0	296.2	298.8	V(PR) 2
	V(PR) 3	168.3	180.1	192.0	222.0	227.7	218.2	205.5	202.4	195.1	V(PR) 3
	VTHETA PR2	-218.0	-220.5	-223.5	-234.6	-247.4	-262.4	-271.9	-275.5	-279.3	VTHETA PR2
	VTHETA PR3	45.6	34.1	22.0	-7.1	-31.0	-42.7	-41.2	-41.2	-38.8	VTHETA PR3
	U 2	220.87	223.79	227.37	239.12	254.67	269.71	280.88	284.17	287.60	U 2
	U 3	220.76	223.64	226.53	235.20	246.76	258.30	266.99	269.86	272.75	U 3
	M 2	0.2390	0.2513	0.2717	0.2662	0.2862	0.2974	0.3334	0.3239	0.3157	M 2
	M 3	0.9012	0.9058	0.9110	0.9324	0.9132	0.8815	0.8713	0.8691	0.8649	M 3
	M(PR) 2	0.6872	0.6988	0.7152	0.7433	0.7867	0.8325	0.8736	0.8794	0.8867	M(PR) 2
	M(PR) 3	0.4865	0.5219	0.5583	0.6505	0.6662	0.6331	0.5917	0.5814	0.5586	M(PR) 3
	TURN (PR)	85.375	79.848	74.281	67.220	60.904	57.854	56.065	56.704	57.723	TURN (PR)
	PT2	8.756	8.791	8.853	8.825	8.881	8.908	9.039	8.998	8.963	PT2
	PT3	13.314	13.528	13.741	14.452	14.582	14.465	14.582	14.651	14.686	PT3
	PS2	8.415	8.413	8.410	8.401	8.390	8.378	8.370	8.367	8.365	PS2
	PS3	7.861	7.948	8.028	8.246	8.499	8.725	8.894	8.954	9.016	PS3
	TT2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	TT2
	TT3	346.111	344.833	343.278	340.333	339.222	341.444	345.611	347.111	349.111	TT3
STATOR F	PCT SPAN	96.20	92.50	86.80	70.80	49.89	29.71	13.99	9.40	5.00	PCT SPAN
	DIA	0.423	0.426	0.431	0.446	0.466	0.485	0.500	0.504	0.508	DIA
STATION 3	BETA 3	58.890	55.710	52.530	45.810	43.770	45.320	48.420	49.250	50.920	BETA 3
STATION 4	BETA 4	3.600	1.700	3.700	9.500	9.100	8.100	7.000	6.900	6.100	BETA 4
	V 3	311.74	312.53	313.34	318.25	312.15	303.78	302.46	302.54	302.12	V 3
	V 4	170.29	175.86	183.71	196.88	202.28	206.44	219.98	222.15	223.94	V 4
	VZ 3	160.73	175.74	190.52	221.76	225.23	213.26	200.29	197.00	189.95	VZ 3
	VZ 4	169.95	175.78	183.32	194.14	199.63	204.21	218.10	220.28	222.39	VZ 4
	V-THETA 3	266.34	257.72	248.56	228.12	215.76	215.65	225.75	228.63	233.90	V-THETA 3
	V-THETA 4	10.69	5.22	11.85	32.49	31.98	29.06	26.78	26.66	23.77	V-THETA 4
	M 3	0.9012	0.9058	0.9110	0.9324	0.9132	0.8815	0.8710	0.8691	0.8649	M 3
	M 4	0.4664	0.4833	0.5072	0.5481	0.5651	0.5755	0.6120	0.6170	0.6205	M 4
	TURN (PR)	55.090	53.849	48.793	36.292	36.630	37.134	41.284	42.194	44.640	TURN (PR)
	PT3	13.314	13.528	13.741	14.452	14.582	14.465	14.582	14.651	14.686	PT3
	PT4	13.059	13.197	13.397	13.734	13.810	13.796	14.058	14.065	14.052	PT4
	PS3	7.861	7.948	8.028	8.246	8.499	8.725	8.894	8.954	9.016	PS3
	PS4	11.250	11.248	11.239	11.197	11.120	11.023	10.918	10.879	10.839	PS4
	TT3	346.111	344.833	343.278	340.333	339.222	341.444	345.611	347.111	349.111	TT3
	TT4	346.111	344.833	343.278	340.333	339.222	341.444	345.611	347.111	349.111	TT4

Table B-11. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Percent Equivalent Rotor Speed = 99.92 Equivalent Rotor Speed = 9928.5 Equivalent Weight Flow = 15.81 kg/sec
Circumferential Distortion
Streamline Position = 297 deg
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	95.90	91.90	87.00	70.90	49.60	29.01	13.71	9.20	4.50	PCT SPAN
	DIA	0.425	0.430	0.437	0.460	0.490	0.519	0.540	0.547	0.553	DIA
STATION 1	BETA 1	-17.200	-15.800	-13.700	-12.500	-11.500	-11.800	-11.100	-11.900	-12.900	BETA 1
STATION 2	BETA 2	9.400	10.000	8.600	9.300	10.200	10.400	10.000	11.600	14.300	BETA 2
	V 1	123.00	126.80	130.36	134.07	133.12	131.42	127.49	124.33	119.75	V 1
	V 2	123.91	128.37	131.28	139.95	140.43	139.30	137.53	136.56	133.43	V 2
	VZ 1	117.50	122.01	126.65	130.87	130.45	128.64	125.11	121.66	116.73	VZ 1
	VZ 2	122.24	126.41	129.78	138.00	137.90	136.43	134.60	132.88	128.36	VZ 2
	V-THETA 1	-36.37	-34.53	-30.87	-29.02	-26.54	-26.87	-24.54	-25.64	-26.73	V-THETA 1
	V-THETA 2	20.24	22.29	19.63	22.60	24.81	25.04	23.73	27.28	32.72	V-THETA 2
	M 1	0.3663	0.3779	0.3888	0.4002	0.3973	0.3921	0.3800	0.3703	0.3563	M 1
	M 2	0.3691	0.3827	0.3916	0.4184	0.4199	0.4164	0.4109	0.4079	0.3983	M 2
	TURN	-26.60	-25.80	-22.30	-21.79	-21.68	-22.16	-21.04	-23.42	-27.09	TURN
	PT1	9.598	9.660	9.722	9.804	9.818	9.818	9.777	9.735	9.673	PT1
	PT2	9.508	9.577	9.625	9.777	9.798	9.791	9.770	9.756	9.708	PT2
	PS1	8.748	8.753	8.759	8.780	8.806	8.831	8.849	8.856	8.861	PS1
	PS2	8.654	8.656	8.659	8.667	8.679	8.690	8.698	8.700	8.703	PS2
	TT1	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	TT1
	TT2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	TT2
ROTOR F	PCT SPAN	94.99	90.01	85.01	70.01	49.99	30.01	14.99	10.01	5.01	PCT SPAN
	DIA	0.425	0.430	0.436	0.452	0.475	0.497	0.514	0.519	0.525	DIA
STATION 2	BETA 2	9.400	10.000	8.600	9.300	10.200	10.400	10.000	11.600	14.300	BETA 2
STATION 3	BETA 3	55.060	51.810	48.330	43.420	42.210	43.360	46.930	49.970	53.670	BETA 3
	BETA (PR) 2	58.646	57.899	58.006	57.489	59.040	60.857	62.370	62.650	63.270	BETA (PR) 2
	BETA (PR) 3	-6.326	-2.876	0.647	6.304	12.095	16.978	17.669	17.102	16.802	BETA (PR) 3
	V 2	123.91	128.37	131.28	139.95	140.43	139.30	137.53	136.56	133.43	V 2
	V 3	292.67	296.94	300.43	306.53	297.35	284.79	282.27	280.72	277.69	V 3
	VZ 2	122.24	126.41	129.78	138.00	137.90	136.43	134.60	132.88	128.36	VZ 2
	VZ 3	167.18	183.16	199.62	222.56	220.06	206.70	192.31	180.12	164.13	VZ 3
	V-THETA 2	20.24	22.29	19.63	22.60	24.81	25.04	23.73	27.28	32.72	V-THETA 2
	V-THETA 3	239.30	232.84	224.28	210.61	199.61	195.19	205.72	214.44	223.19	V-THETA 3
	V(PR) 2	234.9	237.9	245.0	256.8	268.2	280.4	290.6	289.7	285.8	V(PR) 2
	V(PR) 3	169.5	184.5	199.9	224.1	225.4	216.8	202.8	189.5	172.5	V(PR) 3
	VTHETA PR2	-200.6	-201.5	-207.7	-216.5	-229.9	-244.7	-257.1	-256.9	-254.9	VTHETA PR2
	VTHETA PR3	18.5	9.2	-2.3	-24.6	-47.2	-63.1	-61.3	-55.4	-49.6	VTHETA PR3
	U 2	220.87	223.79	227.37	239.12	254.67	269.71	280.88	284.17	287.60	U 2
	U 3	220.76	223.64	226.53	235.20	246.76	258.30	266.98	269.86	272.75	U 3
	M 2	0.3691	0.3827	0.3916	0.4184	0.4199	0.4164	0.4109	0.4079	0.3983	M 2
	M 3	0.8520	0.8675	0.8810	0.9052	0.8758	0.8322	0.8182	0.8108	0.7987	M 3
	M(PR) 2	0.6997	0.7092	0.7308	0.7678	0.8020	0.8382	0.8684	0.8652	0.8532	M(PR) 2
	M(PR) 3	0.4935	0.5390	0.5862	0.6617	0.6638	0.6334	0.5877	0.5472	0.4961	M(PR) 3
	TURN (PR)	64.922	60.756	57.355	51.168	46.904	43.822	44.634	45.476	46.395	TURN (PR)
	PT2	9.508	9.577	9.625	9.777	9.798	9.791	9.770	9.756	9.708	PT2
	PT3	13.686	14.031	14.355	15.079	14.996	14.651	14.672	14.645	14.555	PT3
	PS2	8.654	8.656	8.659	8.667	8.679	8.690	8.698	8.700	8.703	PS2
	PS3	8.516	8.590	8.663	8.865	9.100	9.305	9.451	9.504	9.561	PS3
	TT2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	TT2
	TT3	336.278	335.444	334.278	332.111	330.889	331.778	335.833	337.500	339.222	TT3
STATOR F	PCT SPAN	96.20	92.50	86.80	70.80	49.89	29.71	13.99	9.40	5.00	PCT SPAN
	DIA	0.423	0.426	0.431	0.446	0.466	0.485	0.500	0.504	0.508	DIA
STATION 3	BETA 3	55.060	51.810	48.330	43.420	42.210	43.360	46.930	49.970	53.670	BETA 3
STATION 4	BETA 4	7.700	7.900	8.500	10.400	8.800	8.500	8.700	8.700	8.300	BETA 4
	V 3	292.67	296.94	300.43	306.53	297.35	284.79	282.27	280.72	277.69	V 3
	V 4	182.81	190.89	200.31	221.46	222.15	215.55	222.24	223.60	224.09	V 4
	VZ 3	167.18	183.16	199.62	222.56	220.06	206.70	192.31	180.12	164.13	VZ 3
	VZ 4	181.16	189.08	198.10	217.78	219.43	213.00	219.44	220.77	221.47	VZ 4
	V-THETA 3	239.30	232.84	224.28	210.61	199.61	195.19	205.72	214.44	223.19	V-THETA 3
	V-THETA 4	24.49	26.24	29.61	39.97	33.97	31.83	33.58	33.78	32.31	V-THETA 4
	M 3	0.8520	0.8675	0.8810	0.9052	0.8758	0.8322	0.8182	0.8108	0.7987	M 3
	M 4	0.5101	0.5346	0.5636	0.6298	0.6332	0.6120	0.6284	0.6309	0.6306	M 4
	TURN (PR)	47.147	43.742	39.792	33.002	33.370	34.774	38.095	41.116	45.197	TURN (PR)
	PT3	13.686	14.031	14.355	15.079	14.996	14.651	14.672	14.645	14.555	PT3
	PT4	13.466	13.693	13.976	14.665	14.589	14.196	14.245	14.224	14.169	PT4
	PS3	8.516	8.590	8.663	8.865	9.100	9.305	9.451	9.504	9.561	PS3
	PS4	11.275	11.272	11.265	11.227	11.138	11.025	10.917	10.879	10.839	PS4
	TT3	336.278	335.444	334.278	332.111	330.889	331.778	335.833	337.500	339.222	TT3
	TT4	336.278	335.444	334.278	332.111	330.889	331.778	335.833	337.500	339.222	TT4

Table B-11. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Percent Equivalent Rotor Speed 99.92 Equivalent Rotor Speed = 9928.5 Equivalent Weight Flow = 15.81 kg/sec
Circumferential Distortion
Streamline Position = 327 deg
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	95.90	91.90	87.00	70.90	49.60	29.01	13.71	9.20	4.50	PCT SPAN
	DIA	0.425	0.430	0.437	0.460	0.490	0.519	0.540	0.547	0.553	DIA
STATION 1	BETA 1	-4.300	-3.400	-2.600	-1.650	-1.550	-2.000	-2.500	-2.620	-2.750	BETA 1
STATION 2	BETA 2	14.100	13.100	13.100	12.700	13.400	13.600	14.200	14.800	15.500	BETA 2
	V 1	102.60	110.08	113.98	118.69	121.22	119.98	115.99	112.32	107.97	V 1
	V 2	126.96	132.16	137.11	143.72	145.56	144.29	143.28	140.71	138.04	V 2
	VZ 1	102.31	109.89	113.86	118.64	121.18	119.91	115.87	112.20	107.84	VZ 1
	VZ 2	123.13	128.71	133.52	140.09	141.29	139.66	138.07	135.16	132.07	VZ 2
	V-THETA 1	-7.69	-6.53	-5.17	-3.42	-3.28	-4.19	-5.06	-5.13	-5.18	V-THETA 1
	V-THETA 2	30.93	29.95	31.07	31.57	33.66	33.79	34.94	35.71	36.63	V-THETA 2
	M 1	0.3043	0.3269	0.3388	0.3531	0.3608	0.3571	0.3449	0.3337	0.3205	M 1
	M 2	0.3784	0.3944	0.4096	0.4301	0.4358	0.4319	0.4287	0.4208	0.4125	M 2
	TURN	-18.40	-16.50	-15.70	-14.34	-14.92	-15.54	-16.61	-17.32	-18.14	TURN
	PT1	9.556	9.653	9.708	9.784	9.832	9.825	9.777	9.729	9.673	PT1
	PT2	9.453	9.536	9.618	9.742	9.791	9.784	9.777	9.735	9.694	PT2
	PS1	8.962	8.964	8.967	8.976	8.986	8.996	9.005	9.007	9.009	PS1
	PS2	8.563	8.566	8.569	8.579	8.593	8.607	8.616	8.619	8.623	PS2
	TT1	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	TT1
	TT2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	TT2
ROTOR F	PCT SPAN	94.99	90.01	85.01	70.01	49.53	30.01	14.99	10.01	5.01	PCT SPAN
	DIA	0.425	0.430	0.436	0.452	0.475	0.497	0.515	0.519	0.525	DIA
STATION 2	BETA 2	14.100	13.100	13.100	12.700	13.400	13.600	14.200	14.800	15.500	BETA 2
STATION 3	BETA 3	59.370	54.510	50.790	44.090	42.360	43.150	46.300	48.900	53.520	BETA 3
	BETA (PR) 2	57.046	56.414	55.776	55.981	57.411	59.376	60.691	61.455	62.246	BETA (PR) 2
	BETA (PR) 3	-9.757	-8.357	-0.599	6.890	13.944	19.648	21.869	22.710	23.544	BETA (PR) 3
	V 2	126.96	132.16	137.11	143.72	145.56	144.29	143.28	140.71	138.04	V 2
	V 3	286.23	291.04	295.04	300.65	288.09	274.01	267.55	262.99	257.17	V 3
	VZ 2	123.13	128.71	133.52	140.09	141.29	139.66	138.07	135.16	132.07	VZ 2
	VZ 3	145.53	168.62	186.41	215.86	212.70	199.56	184.40	172.45	152.53	VZ 3
	V-THETA 2	30.93	29.95	31.07	31.57	33.66	33.79	34.94	35.71	36.63	V-THETA 2
	V-THETA 3	245.79	236.49	228.48	209.11	193.95	187.07	192.96	197.68	206.29	V-THETA 3
	V(PR) 2	226.4	232.7	237.4	250.5	262.5	274.5	282.5	283.3	284.1	V(PR) 2
	V(PR) 3	148.8	170.1	186.7	217.6	219.5	212.5	199.6	187.9	167.3	V(PR) 3
	VTHETA PR2	-189.9	-193.8	-196.3	-207.5	-221.0	-235.9	-245.9	-248.5	-251.0	VTHETA PR2
	VTHETA PR3	25.0	12.8	1.9	-26.1	-52.8	-71.2	-74.0	-72.2	-66.5	VTHETA PR3
	U 2	220.87	223.79	227.37	239.12	254.67	269.71	280.88	284.17	287.60	U 2
	U 3	220.76	223.64	226.53	235.20	246.76	258.30	266.98	269.86	272.75	U 3
	M 2	0.3784	0.3944	0.4096	0.4301	0.4358	0.4319	0.4287	0.4208	0.4125	M 2
	M 3	0.8316	0.8496	0.8652	0.8890	0.8498	0.8030	0.7786	0.7619	0.7408	M 3
	M(PR) 2	0.6746	0.6943	0.7093	0.7495	0.7859	0.8215	0.8452	0.8471	0.8489	M(PR) 2
	M(PR) 3	0.4323	0.4966	0.5474	0.6434	0.6474	0.6228	0.5808	0.5443	0.4820	M(PR) 3
	TURN (PR)	66.727	60.743	56.369	49.073	43.427	39.680	38.765	38.694	38.659	TURN (PR)
	PT2	9.453	9.536	9.618	9.742	9.791	9.784	9.777	9.735	9.694	PT2
	PT3	13.893	14.279	14.645	15.389	15.155	14.755	14.610	14.445	14.231	PT3
	PS2	8.563	8.566	8.569	8.579	8.593	8.607	8.616	8.619	8.623	PS2
	PS3	8.828	8.907	8.987	9.208	9.451	9.651	9.788	9.834	9.884	PS3
	TT2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	TT2
	TT3	335.555	334.167	332.722	329.611	327.278	327.111	329.444	330.889	332.833	TT3
STATOR F	PCT SPAN	96.20	92.50	86.80	70.80	49.89	29.71	13.99	9.40	5.00	PCT SPAN
	DIA	0.423	0.426	0.431	0.446	0.466	0.485	0.500	0.504	0.508	DIA
STATION 3	BETA 3	59.370	54.510	50.790	44.090	42.360	43.150	46.300	48.900	53.520	BETA 3
STATION 4	BETA 4	8.800	8.900	9.600	10.400	8.900	8.700	8.600	8.600	8.300	BETA 4
	V 3	286.23	291.04	295.04	300.65	288.09	274.01	267.55	262.99	257.17	V 3
	V 4	188.44	198.18	211.28	232.71	225.99	219.77	222.62	222.38	221.55	V 4
	VZ 3	145.53	168.62	186.41	215.86	212.70	199.56	184.40	172.45	152.53	VZ 3
	VZ 4	186.22	195.79	208.31	228.84	223.16	217.06	219.88	219.62	218.96	VZ 4
	V-THETA 3	245.79	236.49	228.48	209.11	193.95	187.07	192.96	197.68	206.29	V-THETA 3
	V-THETA 4	28.83	30.66	35.23	42.00	38.95	33.21	33.25	33.21	31.94	V-THETA 4
	M 3	0.8316	0.8496	0.8652	0.8890	0.8498	0.8030	0.7786	0.7619	0.7408	M 3
	M 4	0.5272	0.5574	0.5981	0.6673	0.6489	0.6297	0.6361	0.6339	0.6293	M 4
	TURN (PR)	50.371	45.486	41.152	33.672	33.420	34.364	37.565	40.185	45.047	TURN (PR)
	PT3	13.893	14.279	14.645	15.389	15.155	14.755	14.610	14.445	14.231	PT3
	PT4	13.500	13.790	14.210	14.969	14.589	14.196	14.121	14.045	13.941	PT4
	PS3	8.828	8.907	8.987	9.208	9.451	9.651	9.788	9.834	9.884	PS3
	PS4	11.171	11.167	11.157	11.105	10.994	10.868	10.754	10.716	10.677	PS4
	TT3	335.555	334.167	332.722	329.611	327.278	327.111	329.444	330.889	332.833	TT3
	TT4	335.555	334.167	332.722	329.611	327.278	327.111	329.444	330.889	332.833	TT4

ORIGINAL PAGE IS
OF POOR QUALITY

Table B-11. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Percent Equivalent Rotor Speed = 99.92 Equivalent Rotor Speed = 9928.5 Equivalent Weight Flow = 15.81 kg/sec
Circumferential Distortion
Streamline Position = 357 deg
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	95.90	91.90	87.00	70.90	49.60	29.01	13.71	9.20	4.50	PCT SPAN
	DIA	0.425	0.430	0.437	0.460	0.490	0.519	0.540	0.547	0.553	DIA
STATION 1	BETA 1	2.450	2.600	2.750	3.300	3.150	2.650	2.500	2.400	2.300	BETA 1
STATION 2	BETA 2	13.900	13.700	13.300	14.300	15.200	15.600	16.600	16.400	18.800	BETA 2
	V 1	116.70	118.88	123.31	129.50	130.42	126.67	123.93	121.82	118.72	V 1
	V 2	148.22	151.38	155.54	158.59	158.49	156.68	154.41	152.70	150.59	V 2
	VZ 1	116.59	118.76	123.17	129.29	130.22	126.54	123.81	121.72	118.62	VZ 1
	VZ 2	143.88	147.06	151.34	153.55	152.62	150.29	147.11	145.54	141.57	VZ 2
	V-THETA 1	4.99	5.39	5.92	7.45	7.17	5.86	5.41	5.10	4.76	V-THETA 1
	V-THETA 2	35.61	35.85	35.78	39.14	41.46	41.96	43.86	42.84	48.19	V-THETA 2
	M 1	0.3470	0.3537	0.3672	0.3862	0.3890	0.3775	0.3691	0.3627	0.3532	M 1
	M 2	0.4441	0.4539	0.4669	0.4765	0.4762	0.4705	0.4634	0.4580	0.4514	M 2
	TURN	-11.45	-11.10	-10.55	-10.99	-12.02	-12.88	-14.00	-13.89	-16.36	TURN
	PT1	9.618	9.653	9.722	9.832	9.866	9.825	9.798	9.770	9.729	PT1
	PT2	9.584	9.646	9.729	9.804	9.825	9.811	9.784	9.756	9.722	PT2
	PS1	8.849	8.853	8.857	8.871	8.889	8.905	8.918	8.921	8.925	PS1
	PS2	8.370	8.374	8.379	8.393	8.412	8.431	8.445	8.449	8.453	PS2
	TT1	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	TT1
	TT2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	TT2
ROTOR F	PCT SPAN	94.99	90.01	85.01	70.01	49.99	30.01	14.99	10.01	5.01	PCT SPAN
	DIA	0.425	0.430	0.436	0.452	0.475	0.497	0.514	0.519	0.525	DIA
STATION 2	BETA 2	13.900	13.700	13.300	14.300	15.200	15.600	16.600	16.400	18.800	BETA 2
STATION 3	BETA 3	60.570	56.570	52.840	46.750	44.930	45.280	49.180	52.710	58.320	BETA 3
	BETA (PR) 2	52.767	51.956	51.693	52.481	54.404	55.580	58.174	58.907	59.404	BETA (PR) 2
	BETA (PR) 3	-13.045	-7.899	-3.389	3.993	11.007	17.300	19.549	20.541	22.090	BETA (PR) 3
	V 2	148.22	151.38	155.54	158.59	158.49	156.68	154.41	152.70	150.59	V 2
	V 3	292.14	295.54	297.75	303.11	292.62	278.28	270.57	264.46	256.78	V 3
	VZ 2	143.88	147.06	151.34	153.55	152.62	150.29	147.11	145.54	141.57	VZ 2
	VZ 3	143.27	162.52	179.77	207.62	207.00	195.49	176.48	159.88	134.61	VZ 3
	V-THETA 2	35.61	35.85	35.78	39.14	41.46	41.96	43.86	42.84	48.19	V-THETA 2
	V-THETA 3	253.96	246.19	237.18	220.70	206.50	197.41	204.31	209.95	218.12	V-THETA 3
	V(PR) 2	234.6	238.6	244.2	252.2	262.4	273.2	279.5	282.4	278.7	V(PR) 2
	V(PR) 3	148.2	165.0	180.3	208.3	211.2	205.4	188.1	171.6	146.1	V(PR) 3
	VTHETA PR2	-185.3	-187.9	-191.6	-200.0	-213.2	-227.8	-237.0	-241.3	-239.4	VTHETA PR2
	VTHETA PR3	33.2	22.5	10.6	-14.5	-40.3	-60.9	-62.7	-59.9	-54.6	VTHETA PR3
	U 2	220.87	223.79	227.37	239.12	254.67	269.71	280.88	284.17	287.60	U 2
	U 3	220.76	223.64	226.53	235.20	246.76	258.30	266.98	269.86	272.75	U 3
	M 2	0.4441	0.4539	0.4669	0.4765	0.4762	0.4705	0.4634	0.4580	0.4514	M 2
	M 3	0.8501	0.8631	0.8729	0.8957	0.8634	0.8166	0.7876	0.7658	0.7391	M 3
	M(PR) 2	0.7028	0.7156	0.7330	0.7578	0.7884	0.8205	0.8387	0.8470	0.8355	M(PR) 2
	M(PR) 3	0.4312	0.4820	0.5287	0.6154	0.6232	0.6027	0.5476	0.4969	0.4205	M(PR) 3
	TURN (PR)	65.112	59.806	55.072	48.467	43.351	39.216	38.552	38.297	37.252	TURN (PR)
	PT2	9.584	9.646	9.729	9.804	9.825	9.811	9.784	9.756	9.722	PT2
	PT3	14.134	14.465	14.755	15.513	15.431	15.058	14.865	14.631	14.348	PT3
	PS2	8.370	8.374	8.379	8.393	8.412	8.431	8.445	8.449	8.453	PS2
	PS3	8.812	8.896	8.981	9.216	9.487	9.715	9.872	9.924	9.982	PS3
	TT2	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	288.167	TT2
	TT3	336.333	335.222	333.667	330.722	328.444	327.500	330.111	331.611	333.222	TT3
STATOR F	PCT SPAN	96.20	92.50	86.80	70.80	49.89	29.71	13.99	9.40	5.00	PCT SPAN
	DIA	0.423	0.426	0.431	0.446	0.466	0.485	0.500	0.504	0.508	DIA
STATION 3	BETA 3	60.570	56.570	52.840	46.750	44.930	45.280	49.180	52.710	58.320	BETA 3
STATION 4	BETA 4	7.300	8.600	9.100	9.900	8.400	8.600	8.200	8.400	8.000	BETA 4
	V 3	292.14	295.54	297.75	303.11	292.62	278.28	270.57	264.46	256.78	V 3
	V 4	206.26	213.92	222.95	241.63	240.74	232.97	231.82	231.04	229.73	V 4
	VZ 3	143.27	162.52	179.77	207.62	207.00	195.49	176.48	159.88	134.61	VZ 3
	VZ 4	204.59	211.52	220.14	237.98	238.04	230.16	229.20	228.30	227.21	VZ 4
	V-THETA 3	253.96	246.19	237.18	220.70	206.50	197.41	204.31	209.95	218.12	V-THETA 3
	V-THETA 4	26.21	31.99	35.26	41.53	35.15	34.81	33.03	33.71	31.93	V-THETA 4
	M 3	0.8501	0.8631	0.8729	0.8957	0.8634	0.8166	0.7876	0.7658	0.7391	M 3
	M 4	0.5796	0.6037	0.6328	0.6940	0.6938	0.6704	0.6640	0.6599	0.6541	M 4
	TURN (PR)	53.076	47.811	43.703	36.832	36.490	36.594	40.846	44.160	50.158	TURN (PR)
	PT3	14.134	14.465	14.755	15.513	15.431	15.058	14.865	14.631	14.348	PT3
	PT4	13.810	14.065	14.383	15.072	14.900	14.403	14.155	14.052	13.927	PT4
	PS3	8.812	8.896	8.981	9.216	9.487	9.715	9.872	9.924	9.982	PS3
	PS4	10.999	10.995	10.983	10.924	10.801	10.657	10.531	10.490	10.449	PS4
	TT3	336.333	335.222	333.667	330.722	328.444	327.500	330.111	331.611	333.222	TT3
	TT4	336.333	335.222	333.667	330.722	328.444	327.500	330.111	331.611	333.222	TT4

Table B-12. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Percent Equivalent Rotor Speed = 99.95 Equivalent Rotor Speed 9930.6 Equivalent Weight Flow = 36.90 lb/sec
Circumferential Distortion
Streamline Position = 27 deg
U.S. Customary Units

INLET GUIDE VANE	PCT SPAN	95.90	91.90	87.00	70.90	49.60	29.01	13.71	9.20	4.50	PCT SPAN
	DIA	16.727	16.948	17.219	18.109	19.287	20.426	21.272	21.521	21 781	DIA
STATION 1	BETA 1	5.100	5.300	5.600	5.250	5.150	4.500	4.450	4.650	4.850	BETA 1
STATION 2	BETA 2	16.300	16.600	16.800	17.400	18.600	18.300	19.300	19.800	21.000	BETA 2
	V 1	408.71	421.20	432.91	443.13	434.31	429.75	414.57	401.28	38[illegible].60	V 1
	V 2	528.04	536.66	543.83	546.45	546.19	542.63	529.69	523.24	508.31	V 2
	VZ 1	407.09	419.40	430.84	441.27	432.55	428.42	413.32	399.96	386.21	VZ 1
	VZ 2	506.81	514.26	520.54	521.04	516.58	513.14	497.09	489.26	471.35	VZ 2
	V-THETA 1	36.33	38.91	42.24	40.55	38.98	33.72	32.17	32.53	32.77	V-THETA 1
	V-THETA 2	148.20	153.31	157.16	163.29	173.85	169.70	174.08	176.14	180.93	V-THETA 2
	M 1	0.3711	0.3828	0.3937	0.4033	0.3950	0.3908	0.3766	0.3642	0.3514	M 1
	M 2	0.4839	0.4922	0.4991	0.5016	0.5014	0.4979	0.4855	0.4793	0.4650	M 2
	TURN	-11.20	-11.30	-11.20	-12.14	-13.41	-13.72	-14.74	-15.02	-16.00	TURN
	PT1	13.880	13.970	14.060	14.160	14.130	14.130	14.050	13.970	13.890	PT1
	PT2	13.910	13.990	14.060	14.105	14.130	14.125	14.030	13.980	13.860	PT2
	PS1	12.621	12.627	12.635	12.659	12.689	12.718	12.740	12.747	12.753	PS1
	PS2	11.851	11.855	11.860	11.878	11.901	11.924	11.941	11.946	11.951	PS2
	TT1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	TT1
	TT2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	TT2
ROTOR F	PCT SPAN	94.99	90.01	85.01	70.01	49.99	30.01	14.99	10.01	5.01	PCT SPAN
	DIA	16.719	16.937	17.156	17.812	18.688	19.562	20.219	20.437	20.656	DIA
STATION 2	BETA 2	16.300	16.600	16.800	17.400	18.600	18.300	19.300	19.800	21.000	BETA 2
STATION 3	BETA 3	68.370	62.830	58.450	50.080	48.510	49.010	54.610	57.740	61.410	BETA 3
	BETA (PR) 2	48.685	48.490	48.528	50.019	52.028	54.348	56.381	57.103	58.289	BETA (PR) 2
	BETA (PR) 3	-26.561	-17.138	-10.733	0.227	7.872	14.207	17.730	18.991	20.682	BETA (PR) 3
	V 2	528.04	536.66	543.83	546.45	546.19	542.63	529.69	523.24	508.31	V 2
	V 3	973.05	981.26	987.58	1003.30	963.89	921.74	877.24	861.74	846.70	V 3
	VZ 2	506.81	514.26	520.54	521.04	516.58	513.14	497.09	489.26	471.35	VZ 2
	VZ 3	358.29	447.51	516.55	643.65	638.14	603.75	507.18	459.20	404.55	VZ 3
	V-THETA 2	148.20	153.31	157.16	163.29	173.85	169.70	174.08	176.14	180.93	V-THETA 2
	V-THETA 3	903.56	871.88	841.29	769.25	721.53	694.78	713.94	727.51	742.31	V-THETA 3
	V (PR) 2	767.7	776.0	786.1	811.2	840.3	881.7	899.6	902.7	898.7	V (PR) 2
	V (PR) 3	403.1	470.9	526.4	644.1	645.2	624.7	534.9	488.2	435.0	V (PR) 3
	VTHETA PR2	-576.6	-581.1	-588.9	-621.4	-661.9	-715.4	-747.6	-756.4	-762.8	VTHETA PR2
	VTHETA PR3	179.1	138.0	97.9	-2.5	-88.2	-152.9	-162.2	-158.0	-152.7	VTHETA PR3
	U 2	724.79	734.36	746.11	780.67	835.71	885.07	921.73	932.51	943.78	U 2
	U 3	724.44	733.89	743.38	771.89	809.76	847.63	876.10	885.54	895.03	U 3
	M 2	0.4839	0.4922	0.4991	0.5016	0.5014	0.4979	0.4855	0.4793	0.4650	M 2
	M 3	0.8612	0.8721	0.8815	0.9040	0.8668	0.8239	0.7761	0.7590	0.7428	M 3
	M (PR) 2	0.7035	0.7117	0.7214	0.7447	0.7714	0.8091	0.8245	0.8269	0.8221	M (PR) 2
	M (PR) 3	0.3568	0.4185	0.4699	0.5804	0.5802	0.5584	0.4733	0.4300	0.3816	M (PR) 3
	TURN (PR)	75.065	65.528	59.242	49.769	44.104	40.064	38.566	38.030	37.534	TURN (PR)
	PT2	13.910	13.990	14.060	14.105	14.130	14.125	14.030	13.980	13.860	PT2
	PT3	20.330	20.800	21.240	22.410	22.240	21.860	21.220	21.000	20.810	PT3
	PS2	11.851	11.855	11.860	11.878	11.901	11.924	11.941	11.946	11.951	PS2
	PS3	12.528	12.672	12.811	13.192	13.625	14.000	14.251	14.337	14.427	PS3
	TT2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	TT2
	TT3	610.000	607.000	603.500	596.300	591.900	591.500	595.700	598.200	600.400	TT3
STATOR F	PCT SPAN	96.20	92.50	86.80	70.80	49.89	29.71	14.99	9.40	5.00	PCT SPAN
	DIA	16.640	16.776	16.986	17.575	18.345	19.088	19.667	19.836	19.998	DIA
STATION 3	BETA 3	68.370	62.830	58.450	50.080	48.510	49.010	54.610	57.740	61.410	BETA 3
STATION 4	BETA 4	4.600	5.900	7.300	8.900	7.900	8.000	8.200	8.100	8.100	BETA 4
	V 3	973.05	981.26	987.58	1003.30	963.89	921.74	877.24	861.74	846.70	V 3
	V 4	715.56	731.93	757.86	820.15	826.19	804.73	795.63	797.05	797.33	V 4
	VZ 3	358.29	447.51	516.55	643.65	638.14	603.75	507.18	459.20	404.55	VZ 3
	VZ 4	713.25	728.04	754.68	810.11	817.95	796.24	786.63	788.18	788.40	VZ 4
	V-THETA 3	903.56	871.88	841.29	769.25	721.53	694.78	713.94	727.51	742.31	V-THETA 3
	V-THETA 4	57.39	75.24	96.29	126.86	113.50	111.90	113.35	112.17	112.21	V-THETA 4
	M 3	0.8612	0.8721	0.8815	0.9040	0.8668	0.8239	0.7761	0.7590	0.7428	M 3
	M 4	0.6128	0.6296	0.6558	0.7198	0.7286	0.7080	0.6965	0.6963	0.6951	M 4
	TURN (PR)	63.615	56.789	51.116	41.162	40.570	40.925	46.282	49.499	53.158	TURN (PR)
	PT3	20.330	20.800	21.240	22.410	22.240	21.860	21.220	21.000	20.810	PT3
	PT4	19.920	20.180	20.590	21.630	21.520	20.800	20.320	20.230	20.120	PT4
	PS3	12.528	12.672	12.811	13.192	13.625	14.000	14.251	14.337	14.427	PS3
	PS4	15.460	15.451	15.425	15.318	15.117	14.888	14.695	14.633	14.568	PS4
	TT3	610.000	607.000	603.500	596.300	591.900	591.500	595.700	598.200	600.400	TT3
	TT4	610.000	607.000	603.500	596.300	591.900	591.500	595.700	598.200	600.400	TT4

Table B-12. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Percent Equivalent Rotor Speed = 99.95 Equivalent Rotor Speed = 9930.6 Equivalent Weight Flow = 36.90 lb/sec
Circumferential Distortion
Streamline Position = 57 deg
U.S. Customary Units

INLET GUIDE VANE	PCT SPAN	95.90	91.90	87.00	70.90	49.60	29.01	13.71	9.20	4.50	PCT SPAN
	DIA	16.727	16.948	17.219	18.109	19.287	20.426	21.272	21.521	21.781	DIA
STATION 1	BETA 1	12.400	12.300	12.200	11.100	10.800	10.000	10.400	11.200	12.400	BETA 1
STATION 2	BETA 2	17.200	17.000	16.900	17.200	17.900	18.100	18.700	19.600	21.300	BETA 2
	V 1	442.42	450.85	454.60	464.41	462.27	451.10	429.90	416.76	403.09	V 1
	V 2	524.37	531.15	542.91	558.85	558.34	554.86	536.73	534.22	525.34	V 2
	VZ 1	432.10	440.50	444.33	455.72	454.08	444.24	422.84	408.82	393.69	VZ 1
	VZ 2	500.91	507.91	519.37	533.45	530.20	525.30	505.50	500.14	486.17	VZ 2
	V-THETA 1	95.00	96.04	96.07	89.41	86.62	78.33	77.61	80.95	86.56	V-THETA 1
	V-THETA 2	155.06	155.28	157.80	165.13	171.25	171.69	171.10	178.09	189.55	V-THETA 2
	M 1	0.4026	0.4106	0.4141	0.4234	0.4213	0.4108	0.3909	0.3786	0.3658	M 1
	M 2	0.4804	0.4869	0.4982	0.5136	0.5131	0.5097	0.4923	0.4898	0.4813	M 2
	TURN	-4.80	-4.70	-4.70	-6.09	-7.06	-8.03	-8.19	-8.27	-8.75	TURN
	PT1	13.930	14.040	14.040	14.150	14.180	14.140	14.020	13.940	13.860	PT1
	PT2	13.725	13.790	13.900	14.070	14.100	14.100	13.960	13.945	13.875	PT2
	PS1	12.858	12.466	12.477	12.509	12.550	12.589	12.618	12.627	12.636	PS1
	PS2	11.720	11.726	11.732	11.753	11.782	11.809	11.829	11.835	11.841	PS2
	TT1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	TT1
	TT2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	TT2
ROTOR F	PCT SPAN	94.95	90.01	85.01	70.01	49.99	30.01	14.99	10.01	5.01	PCT SPAN
	DIA	16.719	16.937	17.156	17.812	18.688	19.562	20.219	20.437	20.656	DIA
STATION 2	BETA 2	17.200	17.000	16.900	17.200	17.900	18.100	18.700	19.600	21.300	BETA 2
STATION 3	BETA 3	64.520	60.350	56.440	48.400	46.530	47.530	52.520	56.400	61.850	BETA 3
	BETA(RR) 2	48.678	48.746	48.561	49.270	51.41.	53.634	56.042	56.458	57.195	BETA(RR) 2
	BETA(RR) 3	-22.018	-15.024	-9.267	1.731	9.204	14.729	17.950	18.843	19.788	BETA(RR) 3
	V 2	524.37	531.15	542.91	558.85	558.34	554.86	536.73	534.22	525.34	V 2
	V 3	995.53	998.23	1000.78	1005.45	967.92	927.61	886.00	868.22	852.51	V 3
	VZ 2	500.91	507.91	519.37	533.45	530.20	525.30	505.50	500.14	486.17	VZ 2
	VZ 3	427.64	493.09	553.01	667.34	665.42	625.40	538.11	479.61	401.60	VZ 3
	V-THETA 2	155.06	155.28	157.80	165.13	171.25	171.69	171.10	178.09	189.55	V-THETA 2
	V-THETA 3	897.38	866.24	833.61	751.64	701.94	683.22	701.78	721.87	750.55	V-THETA 3
	V(RR) 2	758.6	770.3	784.8	817.8	850.8	867.3	906.8	907.1	899.4	V(RR) 2
	V(RR) 3	464.4	513.4	561.1	668.1	675.1	648.6	568.2	509.4	429.3	V(RR) 3
	VTHETA RR2	-569.7	-579.1	-588.3	-619.5	-664.5	-713.4	-750.6	-754.4	-754.2	VTHETA RR2
	VTHETA RR3	172.9	132.3	90.2	-20.2	-107.8	-164.4	-174.3	-163.7	-144.5	VTHETA RR3
	U 2	724.79	734.36	746.11	784.67	835.71	885.07	921.73	932.51	943.78	U 2
	U 3	724.44	733.89	743.38	771.80	809.76	847.63	876.10	885.54	895.03	U 3
	M 2	0.4804	0.4869	0.4982	0.5136	0.5131	0.5097	0.4923	0.4898	0.4813	M 2
	M 3	0.8856	0.8904	0.8960	0.9086	0.8730	0.8313	0.7861	0.7666	0.7492	M 3
	M(RR) 2	0.6950	0.7061	0.7202	0.7516	0.7819	0.8151	0.8316	0.8317	0.8240	M(RR) 2
	M(RR) 3	0.4132	0.4580	0.5023	0.6038	0.6089	0.5813	0.5042	0.4498	0.3773	M(RR) 3
	TURN(RR)	70.539	63.682	57.811	47.517	42.157	38.829	38.008	37.531	37.327	TURN(RR)
	PT2	13.725	13.790	13.900	14.070	14.100	14.100	13.960	13.945	13.875	PT2
	PT3	20.360	20.700	21.050	21.960	21.800	21.420	20.830	20.560	20.350	PT3
	PS2	11.720	11.726	11.732	11.753	11.782	11.809	11.829	11.835	11.841	PS2
	PS3	12.226	12.366	12.500	12.863	13.268	13.615	13.853	13.935	14.023	PS3
	TT2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	TT2
	TT3	608.300	605.900	602.500	593.700	589.500	589.700	593.900	596.500	599.300	TT3
STATOR F	PCT SPAN	96.20	92.50	86.80	70.80	49.89	29.71	13.99	9.40	5.00	PCT SPAN
	DIA	16.640	16.776	16.986	17.575	18.345	19.088	19.667	19.836	19.998	DIA
STATION 3	BETA 3	64.520	60.350	56.440	48.400	46.530	47.530	52.520	56.400	61.850	BETA 3
STATION 4	BETA 4	4.700	5.500	7.500	9.200	8.500	8.200	7.500	7.100	6.800	BETA 4
	V 3	995.53	998.23	1000.78	1005.45	967.92	927.61	886.00	868.22	852.51	V 3
	V 4	703.05	718.66	741.02	789.92	795.20	764.52	758.85	762.07	766.91	V 4
	VZ 3	427.64	493.09	553.01	667.34	665.42	625.40	538.11	479.61	401.60	VZ 3
	VZ 4	700.68	715.34	734.65	779.60	786.08	756.08	751.53	755.34	760.56	VZ 4
	V-THETA 3	897.38	866.24	833.61	751.64	701.94	683.22	701.78	721.87	750.55	V-THETA 3
	V-THETA 4	57.61	68.88	96.72	126.27	117.48	108.95	98.94	94.08	90.69	V-THETA 4
	M 3	0.8856	0.8904	0.8960	0.9086	0.8730	0.8313	0.7861	0.7666	0.7492	M 3
	M 4	0.6022	0.6179	0.6406	0.6923	0.7001	0.6705	0.6625	0.6640	0.6669	M 4
	TURN(RR)	59.644	54.701	48.904	39.182	37.990	39.244	44.888	49.155	54.898	TURN(RR)
	PT3	20.360	20.700	21.050	21.960	21.800	21.420	20.830	20.560	20.350	PT3
	PT4	19.940	20.180	20.530	21.330	21.230	20.410	20.040	19.990	19.960	PT4
	PS3	12.226	12.366	12.500	12.863	13.268	13.615	13.853	13.935	14.023	PS3
	PS4	15.606	15.598	15.577	15.483	15.304	15.100	14.928	14.872	14.813	PS4
	TT3	608.300	605.900	602.500	593.700	589.500	589.700	593.900	596.500	599.300	TT3
	TT4	608.300	605.900	602.500	593.700	589.500	589.700	593.900	596.500	599.300	TT4

Table B-12. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Percent Equivalent Rotor Speed = 99.95 Equivalent Rotor Speed = 9930.6 Equivalent Weight Flow = 36.90 lb/sec
Circumferential Distortion
Streamline Position = 87 deg
U.S. Customary Units

INLET GUIDE VANE	PCT SPAN	95.90	91.90	87.00	70.90	49.60	29.01	13.71	9.20	4.50	PCT SPAN
	DIA	16.727	16.948	17.219	18.109	19.287	20.426	21.272	21.521	21.781	DIA
STATION 1	BETA 1	23.900	22.500	22.400	20.500	19.950	18.800	20.700	22.400	24.100	BETA 1
STATION 2	BETA 2	23.900	22.900	22.300	21.700	21.100	23.700	24.600	25.700	27.800	BETA 2
	V 1	483.64	489.21	510.27	524.42	523.28	521.26	503.68	498.87	485.46	V 1
	V 2	563.31	567.20	577.22	578.00	581.06	586.25	578.31	568.68	545.36	V 2
	VZ 1	442.17	451.97	471.77	491.20	491.88	493.44	471.16	461.23	443.15	VZ 1
	VZ 2	515.00	522.46	533.96	536.66	541.00	534.82	523.06	509.51	479.50	VZ 2
	V-THETA 1	195.94	187.21	194.45	183.65	178.54	167.98	178.04	190.11	198.23	V-THETA 1
	V-THETA 2	228.21	220.70	218.99	213.56	208.75	234.77	239.47	245.21	252.81	V-THETA 2
	M 1	0.4416	0.4468	0.4669	0.4804	0.4793	0.4774	0.4606	0.4560	0.4433	M 1
	M 2	0.5179	0.5217	0.5314	0.5322	0.5351	0.5402	0.5325	0.5231	0.5006	M 2
	TURN	0.00	-0.40	0.10	-1.18	-1.11	-4.81	-3.76	-3.14	-3.52	TURN
	PT1	13.630	13.680	13.860	14.010	14.040	14.060	13.940	13.910	13.810	PT1
	PT2	13.575	13.620	13.725	13.770	13.850	13.950	13.910	13.830	13.630	PT2
	PS1	11.922	11.928	11.937	11.963	11.997	12.029	12.053	12.061	12.067	PS1
	PS2	11.306	11.314	11.324	11.355	11.397	11.438	11.468	11.477	11.486	PS2
	TT1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	TT1
	TT2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	TT2
ROTOR F	PCT SPAN	94.99	90.01	85.01	70.01	49.99	30.01	14.99	10.01	5.01	PCT SPAN
	DIA	16.719	16.937	17.156	17.812	18.688	19.562	20.219	20.437	20.656	DIA
STATION 2	BETA 2	23.900	22.900	22.300	21.700	21.100	23.700	24.600	25.700	27.800	BETA 2
STATION 3	BETA 3	68.790	63.830	58.250	46.830	46.590	52.110	57.870	61.740	66.180	BETA 3
	BETA (PR) 2	43.957	44.514	44.630	46.781	49.209	50.565	52.524	53.450	55.241	BETA (PR) 2
	BETA (PR) 3	-23.649	-14.635	-6.452	5.514	13.924	17.609	21.696	22.986	25.620	BETA (PR) 3
	V 2	563.31	567.20	577.22	578.00	581.06	586.25	578.31	568.68	545.36	V 2
	V 3	937.15	939.20	940.33	970.68	903.58	862.37	828.91	819.77	808.32	V 3
	VZ 2	515.00	522.46	533.96	536.66	541.00	534.82	523.06	509.51	479.50	VZ 2
	VZ 3	338.70	413.73	494.63	663.89	620.50	528.97	440.22	387.63	326.09	VZ 3
	V-THETA 2	228.21	220.70	218.99	213.56	208.75	234.77	239.47	245.21	252.81	V-THETA 2
	V-THETA 3	872.76	841.93	799.31	707.71	655.93	679.74	700.95	721.12	738.66	V-THETA 3
	V (PR) 2	715.4	732.7	750.4	784.0	828.9	843.5	861.7	857.7	843.2	V (PR) 2
	V (PR) 3	372.2	430.0	498.4	667.4	640.2	556.6	475.9	423.1	363.6	V (PR) 3
	VTHETA PR2	-496.6	-513.7	-527.1	-571.1	-627.0	-650.3	-682.3	-687.3	-691.0	VTHETA PR2
	VTHETA PR3	148.3	108.0	55.9	-64.1	-153.8	-167.9	-175.1	-164.4	-156.4	VTHETA PR3
	U 2	724.79	734.36	746.11	784.67	835.71	885.07	921.73	932.51	943.78	U 2
	U 3	724.44	733.89	743.38	771.80	809.76	847.63	876.10	885.54	895.03	U 3
	M 2	0.5179	0.5217	0.5314	0.5322	0.5351	0.5402	0.5325	0.5231	0.5006	M 2
	M 3	0.8349	0.8395	0.8438	0.8827	0.8166	0.7732	0.7371	0.7263	0.7131	M 3
	M (PR) 2	0.6578	0.6739	0.6908	0.7218	0.7634	0.7772	0.7934	0.7890	0.7739	M (PR) 2
	M (PR) 3	0.3316	0.3844	0.4473	0.6070	0.5786	0.4990	0.4232	0.3749	0.3208	M (PR) 3
	TURN (PR)	67.439	59.063	51.068	41.247	35.240	32.886	30.751	30.391	29.562	TURN (PR)
	PT2	13.575	13.620	13.725	13.770	13.850	13.950	13.910	13.830	13.630	PT2
	PT3	18.880	19.180	19.460	20.800	19.940	19.550	19.220	19.140	19.030	PT3
	PS2	11.306	11.314	11.324	11.355	11.397	11.438	11.468	11.477	11.486	PS2
	PS3	11.957	12.090	12.212	12.529	12.866	13.167	13.395	13.473	13.558	PS3
	TT2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	TT2
	TT3	597.400	594.300	590.400	581.600	577.500	579.600	583.400	586.000	589.000	TT3
STATOR F	PCT SPAN	96.20	92.50	86.80	70.80	49.89	29.71	13.99	9.40	5.00	PCT SPAN
	DIA	16.680	16.776	16.986	17.575	18.345	19.088	19.667	19.836	19.998	DIA
STATION 3	BETA 3	68.790	63.830	58.250	46.830	46.590	52.110	57.870	61.740	66.180	BETA 3
STATION 4	BETA 4	5.200	6.100	7.600	10.400	10.200	8.900	7.300	6.700	5.800	BETA 4
	V 3	937.15	939.20	940.33	970.68	903.58	862.37	828.91	819.77	808.32	V 3
	V 4	565.59	580.18	601.33	632.32	630.70	608.95	606.15	610.30	613.29	V 4
	VZ 3	338.70	413.73	494.63	663.89	620.50	528.97	440.22	387.63	326.09	VZ 3
	VZ 4	563.26	576.88	596.02	621.81	620.43	601.11	600.58	605.42	609.39	VZ 4
	V-THETA 3	872.76	841.93	799.31	707.71	655.93	679.74	700.95	721.12	738.66	V-THETA 3
	V-THETA 4	51.26	61.65	79.53	114.12	111.63	94.13	76.94	71.12	61.90	V-THETA 4
	M 3	0.8349	0.8395	0.8438	0.8827	0.8166	0.7732	0.7371	0.7263	0.7131	M 3
	M 4	0.4829	0.4973	0.5182	0.5508	0.5514	0.5303	0.5259	0.5285	0.5298	M 4
	TURN (PR)	63.437	57.593	50.615	36.412	36.351	43.127	50.448	54.909	60.245	TURN (PR)
	PT3	18.880	19.180	19.460	20.800	19.940	19.550	19.220	19.140	19.030	PT3
	PT4	18.680	18.850	19.100	19.470	19.360	18.940	18.760	18.750	18.720	PT4
	PS3	11.957	12.090	12.212	12.529	12.866	13.167	13.395	13.473	13.558	PS3
	PS4	15.925	15.919	15.904	15.842	15.746	15.639	15.538	15.502	15.463	PS4
	TT3	597.400	594.300	590.400	581.600	577.500	579.600	583.400	586.000	589.000	TT3
	TT4	597.400	594.300	590.400	581.600	577.500	579.600	583.400	586.000	589.000	TT4

Table B-12. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Percent Equivalent Rotor Speed = 99.95 Equivalent Rotor Speed = 9930.6 Equivalent Weight Flow = 36.90 lb/sec
Circumferential Distortion
Streamline Position = 117 deg
U.S. Customary Units

INLET GUIDE VANE	PCT SPAN	95.90	91.90	87.00	70.90	49.60	29.01	13.71	9.20	4.50	PCT SPAN
	DIA	16.727	16.948	17.219	18.109	19.287	20.426	21.272	21.521	21.781	DIA
STATION 1	BETA 1	15.500	15.800	16.300	15.100	14.800	14.100	13.800	14.600	15.650	BETA 1
STATION 2	BETA 2	23.000	21.400	20.900	20.600	21.400	22.600	24.000	25.200	27.300	BETA 2
	V 1	312.92	325.06	336.47	334.23	336.99	330.84	334.88	333.41	320.51	V 1
	V 2	469.19	475.60	477.14	464.91	456.28	463.13	452.03	451.50	436.40	V 2
	VZ 1	301.53	312.78	322.95	322.69	325.81	320.87	325.22	322.64	308.63	VZ 1
	VZ 2	431.89	442.78	445.68	434.87	423.96	425.95	410.76	406.19	385.42	VZ 2
	V-THETA 1	83.62	88.57	94.44	87.07	86.08	80.60	79.88	84.04	86.46	V-THETA 1
	V-THETA 2	183.32	173.52	170.19	163.46	166.15	177.31	182.88	191.14	198.93	V-THETA 2
	M 1	0.2825	0.2937	0.3041	0.3021	0.3046	0.2990	0.3027	0.3013	0.2895	M 1
	M 2	0.4279	0.4339	0.4354	0.4238	0.4157	0.4221	0.4117	0.4112	0.3970	M 2
	TURN	-7.50	-5.60	-4.60	-5.48	-6.55	-8.41	-10.06	-10.45	-11.47	TURN
	PT1	12.000	12.050	12.100	12.080	12.080	12.080	12.050	12.040	11.980	PT1
	PT2	12.100	12.145	12.160	12.090	12.050	12.110	12.050	12.050	11.960	PT2
	PS1	11.353	11.350	11.348	11.339	11.327	11.316	11.308	11.305	11.303	PS1
	PS2	10.669	10.671	10.675	10.685	10.699	10.713	10.723	10.726	10.729	PS2
	TT1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	TT1
	TT2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	TT2
ROTOR F	PCT SPAN	94.99	90.01	85.01	70.01	49.99	30.01	14.99	10.01	5.01	PCT SPAN
	DIA	16.719	16.937	17.156	17.812	18.688	19.562	20.219	20.437	20.656	DIA
STATION 2	BETA 2	23.000	21.400	20.900	20.600	21.400	22.600	24.000	25.200	27.300	BETA 2
STATION 3	BETA 3	74.070	69.790	64.530	56.520	54.250	57.340	63.540	67.430	74.460	BETA 3
	BETA (PR) 2	51.423	51.709	52.265	55.007	57.658	58.959	60.928	61.283	62.641	BETA (PR) 2
	BETA (PR) 3	-40.260	-30.208	-19.973	-5.762	2.485	6.343	8.247	9.233	11.616	BETA (PR) 3
	V 2	469.19	475.60	477.14	464.91	456.28	463.13	452.03	451.50	436.40	V 2
	V 3	994.12	996.09	996.04	991.72	968.05	940.74	913.68	899.07	879.19	V 3
	VZ 2	431.89	442.78	445.68	434.87	423.96	425.95	410.76	406.19	385.42	VZ 2
	VZ 3	272.69	343.86	428.23	546.96	565.29	507.19	406.70	344.78	235.43	VZ 3
	V-THETA 2	183.32	173.52	170.19	163.46	166.15	177.31	182.88	191.14	198.93	V-THETA 2
	V-THETA 3	955.37	934.09	899.01	827.00	785.23	791.25	817.15	829.50	846.64	V-THETA 3
	V(PR) 2	692.6	714.6	728.3	758.5	793.0	827.0	846.6	846.7	840.0	V(PR) 2
	V(PR) 3	359.0	399.7	456.2	550.1	566.7	512.0	413.0	351.3	241.9	V(PR) 3
	VTHETA PR2	-541.5	-560.8	-575.9	-621.2	-669.6	-707.8	-738.8	-741.4	-744.9	VTHETA PR2
	VTHETA PR3	230.9	200.2	155.6	55.2	-24.5	-56.4	-58.9	-56.0	-48.4	VTHETA PR3
	U 2	724.79	734.36	746.11	784.67	835.71	885.07	921.73	932.51	943.78	U 2
	U 3	724.44	733.89	743.38	771.80	809.76	847.63	876.10	885.54	895.03	U 3
	M 2	0.4279	0.4339	0.4354	0.4238	0.4157	0.4221	0.4117	0.4112	0.3970	M 2
	M 3	0.8808	0.8841	0.8860	0.8858	0.8634	0.8335	0.8028	0.7873	0.7666	M 3
	M(PR) 2	0.6316	0.6520	0.6646	0.6915	0.7225	0.7538	0.7711	0.7711	0.7642	M(PR) 2
	M(PR) 3	0.3181	0.3548	0.4058	0.4914	0.5054	0.4536	0.3629	0.3076	0.2109	M(PR) 3
	TURN (PR)	91.460	81.765	72.208	60.743	55.117	52.524	52.566	51.932	50.918	TURN (PR)
	PT2	12.100	12.145	12.160	12.090	12.050	12.110	12.050	12.050	11.960	PT2
	PT3	18.740	19.050	19.320	19.940	20.170	20.180	20.020	19.870	19.630	PT3
	PS2	10.669	10.671	10.675	10.685	10.699	10.713	10.723	10.726	10.729	PS2
	PS3	11.311	11.458	11.597	11.971	12.401	12.799	13.097	13.200	13.305	PS3
	TT2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	TT2
	TT3	612.300	610.800	608.500	603.400	601.100	603.800	608.500	610.000	611.700	TT3
STATOR F	PCT SPAN	96.20	92.50	86.80	70.80	49.89	29.71	13.99	9.40	5.00	PCT SPAN
	DIA	16.640	16.776	16.986	17.575	18.345	19.088	19.667	19.836	19.998	DIA
STATION 3	BETA 3	74.070	69.790	64.530	56.520	54.250	57.340	63.540	67.430	74.460	BETA 3
STATION 4	BETA 4	1.300	0.900	2.800	8.700	10.300	10.900	11.100	10.600	9.600	BETA 4
	V 3	994.12	996.09	996.04	991.72	968.05	940.74	913.68	899.07	879.19	V 3
	V 4	526.95	548.02	574.93	629.88	647.40	663.09	662.97	658.58	656.05	V 4
	VZ 3	272.69	343.86	428.23	546.96	565.29	507.19	406.70	344.78	235.43	VZ 3
	VZ 4	526.81	547.95	574.22	622.51	636.65	650.59	649.86	646.59	646.06	VZ 4
	V-THETA 3	955.37	934.09	899.01	827.00	785.23	791.25	817.15	829.50	846.64	V-THETA 3
	V-THETA 4	11.95	8.61	28.08	95.26	115.70	125.28	127.50	121.01	109.27	V-THETA 4
	M 3	0.8808	0.8841	0.8860	0.8858	0.8634	0.8335	0.8028	0.7873	0.7666	M 3
	M 4	0.4428	0.4619	0.4866	0.5380	0.5550	0.5680	0.5655	0.5608	0.5577	M 4
	TURN (PR)	72.650	68.778	61.700	47.803	43.913	46.364	52.336	56.724	64.772	TURN (PR)
	PT3	18.740	19.050	19.320	19.940	20.170	20.180	20.020	19.870	19.630	PT3
	PT4	18.320	18.530	18.810	19.420	19.550	19.610	19.450	19.340	19.250	PT4
	PS3	11.311	11.458	11.597	11.971	12.401	12.799	13.097	13.200	13.305	PS3
	PS4	16.012	16.009	15.998	15.948	15.859	15.756	15.656	15.622	15.585	PS4
	TT3	612.300	610.800	608.500	603.400	601.100	603.800	608.500	610.000	611.700	TT3
	TT4	612.300	610.800	608.500	603.400	601.100	603.800	608.500	610.000	611.700	TT4

Table B-12. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Percent Equivalent Rotor Speed = 99.95 Equivalent Rotor Speed = 9930.6 Equivalent Weight Flow = 36.90 lb/sec
Circumferential Distortion
Streamline Position = 147 deg
U.S. Customary Units

INLET GUIDE VANE	PCT SPAN	95.90	91.90	87.00	70.90	49.60	29.01	13.71	9.20	4.50	PCT SPAN
	DIA	16.727	16.948	17.219	18.109	19.287	20.426	21.272	21.521	21.781	DIA
STATION 1	BETA 1	6.650	7.000	7.250	4.850	4.500	4.250	4.300	4.750	5.250	BETA 1
STATION 2	BETA 2	18.400	18.200	18.200	18.800	20.300	20.300	21.300	22.500	24.500	BETA 2
	V 1	324.78	335.37	339.23	345.88	345.96	343.94	335.95	333.31	314.81	V 1
	V 2	426.22	441.73	441.36	448.54	447.11	447.27	444.76	444.40	427.65	V 2
	VZ 1	322.59	332.87	336.51	344.64	344.89	342.99	335.00	332.17	313.49	VZ 1
	VZ 2	404.42	419.60	419.21	424.30	416.48	417.86	412.09	408.11	386.65	VZ 2
	V-THETA 1	37.61	40.87	42.81	29.24	27.14	25.49	25.19	27.60	28.81	V-THETA 1
	V-THETA 2	134.53	137.96	137.83	144.44	154.80	154.57	160.67	169.05	176.21	V-THETA 2
	M 1	0.2934	0.3031	0.3067	0.3128	0.3129	0.3110	0.3037	0.3012	0.2842	M 1
	M 2	0.3875	0.4020	0.4017	0.4084	0.4071	0.4072	0.4048	0.4045	0.3888	M 2
	TURN	-11.75	-11.20	-10.95	-13.94	-15.76	-15.97	-16.88	-17.61	-19.08	TURN
	PT1	11.950	12.000	12.020	12.060	12.070	12.070	12.040	12.030	11.950	PT1
	PT2	11.855	11.950	11.950	12.000	12.000	12.010	12.000	12.000	11.900	PT2
	PS1	11.257	11.259	11.261	11.269	11.278	11.287	11.294	11.296	11.298	PS1
	PS2	10.689	10.691	10.693	10.698	10.706	10.714	10.719	10.721	10.722	PS2
	TT1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	TT1
	TT2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	TT2
ROTOR F	PCT SPAN	94.99	90.01	85.01	70.01	49.99	30.01	14.99	10.01	5.01	PCT SPAN
	DIA	16.719	16.937	17.156	17.812	18.688	19.562	20.219	20.437	20.656	DIA
STATION 2	BETA 2	18.400	18.200	18.200	18.800	20.300	20.300	21.300	22.500	24.500	BETA 2
STATION 3	BETA 3	77.290	71.700	66.570	57.690	55.740	56.560	62.080	65.730	70.660	BETA 3
	BETA (PB) 2	55.582	54.872	55.426	56.466	58.426	60.230	61.566	61.873	63.264	BETA (PB) 2
	BETA (PB) 3	-48.663	-34.056	-23.106	-5.773	4.466	10.860	13.014	13.567	14.903	BETA (PB) 3
	V 2	426.22	441.73	441.36	448.54	447.11	447.27	444.76	444.40	427.65	V 2
	V 3	999.09	996.12	994.18	975.77	930.72	902.45	884.30	876.94	868.17	V 3
	VZ 2	404.42	419.60	419.21	424.30	418.48	417.86	412.09	408.11	386.65	VZ 2
	VZ 3	219.73	312.59	395.23	521.44	523.69	496.82	413.61	360.10	287.30	VZ 3
	V-THETA 2	134.53	137.96	137.83	144.44	154.80	154.57	160.67	169.05	176.21	V-THETA 2
	V-THETA 3	974.23	945.17	912.01	824.52	768.86	752.32	780.51	798.65	818.57	V-THETA 3
	V (PR) 2	715.5	729.2	738.8	768.3	799.7	842.5	866.7	867.1	860.8	V (PR) 2
	V (PR) 3	333.8	378.9	430.2	524.5	526.1	507.5	426.5	372.5	299.2	V (PR) 3
	VTHETA PR2	-590.3	-596.4	-608.3	-640.2	-680.9	-730.5	-761.1	-763.5	-767.6	VTHETA PR2
	VTHETA PR3	249.8	211.3	168.6	52.7	-40.9	-95.3	-95.6	-86.9	-76.5	VTHETA PR3
	U 2	724.79	734.36	746.11	784.67	835.71	885.07	921.73	932.51	943.78	U 2
	U 3	724.44	733.89	743.38	771.80	809.76	847.63	876.10	885.54	895.03	U 3
	M 2	0.3875	0.4020	0.4017	0.4084	0.4071	0.4072	0.4048	0.4045	0.3888	M 2
	M 3	0.8796	0.8787	0.8795	0.8674	0.8258	0.7966	0.7749	0.7660	0.7557	M 3
	M (PR) 2	0.6504	0.6636	0.6723	0.6995	0.7281	0.7670	0.7889	0.7892	0.7826	M (PB) 2
	M (PR) 3	0.2939	0.3342	0.3806	0.4662	0.4668	0.4480	0.3738	0.3254	0.2604	M (PB) 3
	TURN (PR)	104.020	88.765	78.499	62.214	53.907	49.295	48.862	48.214	48.277	TURN (PR)
	PT2	11.855	11.950	11.950	12.000	12.000	12.010	12.000	12.000	11.900	PT2
	PT3	18.850	19.090	19.340	19.720	19.550	19.550	19.540	19.510	19.460	PT3
	PS2	10.689	10.691	10.693	10.698	10.706	10.714	10.719	10.721	10.722	PS2
	PS3	11.393	11.548	11.690	12.073	12.497	12.868	13.138	13.231	13.328	PS3
	TT2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	TT2
	TT3	620.000	617.300	614.000	605.800	600.700	601.800	607.000	609.400	612.000	TT3
STATOR F	PCT SPAN	96.20	92.50	86.80	70.80	49.89	29.71	13.99	9.40	5.00	PCT SPAN
	DIA	16.640	16.776	16.986	17.575	18.345	19.088	19.667	19.836	19.998	DIA
STATION 3	BETA 3	77.290	71.700	66.570	57.690	55.740	56.560	62.080	65.730	70.660	BETA 3
STATION 4	BETA 4	4.600	4.500	3.900	6.600	8.700	9.400	10.200	9.400	8.700	BETA 4
	V 3	999.09	996.12	994.18	975.77	930.72	902.45	884.30	876.94	868.17	V 3
	V 4	549.09	560.45	575.01	602.94	608.26	633.62	646.43	651.51	654.52	V 4
	VZ 3	219.73	312.59	395.23	521.44	523.69	496.82	413.61	360.10	287.30	VZ 3
	VZ 4	547.32	558.71	573.65	598.82	600.97	624.59	635.53	642.02	646.19	VZ 4
	V-THETA 3	974.23	945.17	912.01	824.52	768.86	752.32	780.51	798.65	818.57	V-THETA 3
	V-THETA 4	44.04	43.97	39.11	69.29	91.96	103.40	114.35	106.29	98.88	V-THETA 4
	M 3	0.8796	0.8787	0.8795	0.8674	0.8258	0.7966	0.7749	0.7660	0.7557	M 3
	M 4	0.4592	0.4702	0.4844	0.5127	0.5198	0.5422	0.5513	0.5547	0.5562	M 4
	TURN (PR)	72.593	67.097	62.642	51.073	47.003	47.082	51.771	56.216	61.851	TURN (PR)
	PT3	18.850	19.090	19.340	19.720	19.550	19.550	19.540	19.510	19.460	PT3
	PT4	18.480	18.600	18.750	19.030	19.000	19.160	19.150	19.150	19.120	PT4
	PS3	11.393	11.548	11.690	12.073	12.497	12.868	13.138	13.231	13.328	PS3
	PS4	15.992	15.986	15.970	15.906	15.804	15.688	15.577	15.538	15.497	PS4
	TT3	620.000	617.300	614.000	605.800	600.700	601.800	607.000	609.400	612.000	TT3
	TT4	620.000	617.300	614.000	605.800	600.700	601.800	607.000	609.400	612.000	TT4

ORIGINAL PAGE IS
OF POOR QUALITY

Table B-12. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Percent Equivalent Rotor Speed = 99.95 Equivalent Rotor Speed = 9930.6 Equivalent Weight Flow = 36.90 lb/sec
Circumferential Distortion
Streamline Position = 177 deg
U.S. Customary Units

INLET GUIDE VANE	PCT SPAN	95.90	91.90	87.00	70.90	49.60	29.01	13.71	9.20	4.50	PCT SPAN
	DIA	16.727	16.948	17.219	18.109	19.287	20.426	21.272	21.521	21.781	DIA
STATION 1	BETA 1	-3.340	-3.130	-2.870	-2.420	-2.300	-1.950	-1.600	-1.800	-2.000	BETA 1
STATION 2	BETA 2	13.800	13.100	13.000	13.300	15.600	15.500	16.200	18.000	20.000	BETA 2
	V 1	310.78	319.63	336.52	338.30	339.62	347.23	334.33	331.46	314.93	V 1
	V 2	416.43	430.65	435.29	440.95	440.31	438.85	440.39	438.39	421.40	V 2
	VZ 1	310.25	319.15	336.10	338.00	339.34	347.02	334.20	331.29	314.74	VZ 1
	VZ 2	404.41	419.41	424.06	428.79	423.17	421.15	420.42	414.29	393.28	VZ 2
	V-THETA 1	-18.11	-17.45	-16.85	-14.28	-13.63	-11.82	-9.34	-10.41	-10.99	V-THETA 1
	V-THETA 2	99.33	97.60	97.90	101.36	118.15	116.80	122.14	134.61	143.14	V-THETA 2
	M 1	0.2805	0.2887	0.3042	0.3058	0.3071	0.3141	0.3022	0.2995	0.2844	M 1
	M 2	0.3783	0.3916	0.3959	0.4013	0.4007	0.3993	0.4007	0.3989	0.3829	M 2
	TURN	-17.14	-16.23	-15.87	-15.71	-17.87	-17.38	-17.70	-19.68	-21.86	TURN
	PT1	11.880	11.920	12.000	12.020	12.040	12.090	12.040	12.030	11.960	PT1
	PT2	11.845	11.930	11.960	12.000	12.005	12.005	12.020	12.010	11.910	PT2
	PS1	11.248	11.250	11.254	11.265	11.278	11.291	11.301	11.304	11.307	PS1
	PS2	10.731	10.733	10.735	10.740	10.748	10.756	10.761	10.763	10.764	PS2
	TT1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	TT1
	TT2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	TT2
ROTOR F	PCT SPAN	98.99	90.01	85.01	70.01	49.99	30.01	14.99	10.01	5.01	PCT SPAN
	DIA	16.719	16.937	17.156	17.812	18.688	19.562	20.219	20.437	20.656	DIA
STATION 2	BETA 2	13.800	13.100	13.000	13.300	15.600	15.500	16.200	18.000	20.000	BETA 2
STATION 3	BETA 3	74.740	70.380	65.130	54.520	52.020	53.040	57.690	61.270	64.810	BETA 3
	BETA (PR) 2	57.114	56.629	56.807	57.891	59.471	61.269	62.264	62.560	63.839	BETA (PR) 2
	BETA (PR) 3	-39.813	-28.700	-18.630	-3.118	5.862	12.442	13.878	13.492	14.096	BETA (PR) 3
	V 2	416.43	430.65	435.29	440.95	440.31	438.85	440.39	438.39	421.40	V 2
	V 3	972.48	968.72	971.35	986.30	951.65	910.83	897.81	893.69	885.69	V 3
	VZ 2	404.41	419.41	424.06	428.79	423.17	421.15	420.42	414.29	393.28	VZ 2
	VZ 3	255.82	325.06	408.41	572.33	585.29	547.00	479.19	429.00	376.51	VZ 3
	V-THETA 2	99.33	97.60	97.90	101.36	118.15	116.80	122.14	134.61	143.14	V-THETA 2
	V-THETA 3	937.68	911.85	881.06	802.97	749.67	726.95	757.70	782.61	800.49	V-THETA 3
	V (PR) 2	744.8	762.5	774.6	806.9	833.6	877.0	904.6	900.4	893.4	V (PR) 2
	V (PR) 3	334.6	372.3	431.5	573.6	589.3	561.9	495.9	443.6	390.7	V (PR) 3
	VTHETA PR2	-625.5	-636.8	-648.2	-683.3	-717.6	-768.3	-799.6	-797.9	-800.6	VTHETA PR2
	VTHETA PR3	213.2	178.0	137.7	31.2	-60.1	-120.7	-118.4	-102.9	-94.5	VTHETA PR3
	U 2	724.79	734.36	746.11	784.67	835.71	885.07	921.73	932.51	943.70	U 2
	U 3	724.44	733.89	743.38	771.80	809.76	847.63	876.10	885.54	895.03	U 3
	M 2	0.3783	0.3916	0.3959	0.4013	0.4007	0.3993	0.4007	0.3989	0.3829	M 2
	M 3	0.8525	0.8504	0.8552	0.8758	0.8447	0.8033	0.7860	0.7800	0.7702	M 3
	M (PR) 2	0.6766	0.6934	0.7046	0.7343	0.7585	0.7980	0.8232	0.8192	0.8118	M (PR) 2
	M (PR) 3	0.2933	0.3268	0.3799	0.5093	0.5231	0.4956	0.4342	0.3872	0.3397	M (PR) 3
	TURN (PR)	96.704	85.182	75.409	60.985	53.560	48.759	48.303	48.979	49.657	TURN (PR)
	PT2	11.845	11.930	11.960	12.000	12.005	12.005	12.020	12.010	11.910	PT2
	PT3	18.600	18.790	19.100	20.120	20.130	19.850	19.900	19.920	19.870	PT3
	PS2	10.731	10.733	10.735	10.740	10.748	10.756	10.761	10.763	10.764	PS2
	PS3	11.567	11.711	11.845	12.209	12.620	12.979	13.236	13.327	13.421	PS3
	TT2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	TT2
	TT3	620.200	618.100	615.400	608.700	603.500	604.000	610.000	612.700	615.600	TT3
STATOR F	PCT SPAN	96.20	92.50	86.80	70.80	49.89	29.71	13.99	9.40	5.00	PCT SPAN
	DIA	16.640	16.776	16.986	17.575	18.345	19.088	19.667	19.836	19.998	DIA
STATION 3	BETA 3	74.740	70.380	65.130	54.520	52.020	53.040	57.690	61.270	64.810	BETA 3
STATION 4	BETA 4	-0.000	-2.600	-3.400	4.000	7.800	9.700	8.900	8.400	7.200	BETA 4
	V 3	972.48	968.72	971.35	986.30	951.65	910.83	897.81	893.69	885.69	V 3
	V 4	537.66	555.46	578.89	625.64	629.20	647.86	669.44	677.42	681.28	V 4
	VZ 3	255.82	325.06	408.41	572.33	585.29	547.00	479.19	429.00	376.51	VZ 3
	VZ 4	537.66	554.88	577.85	623.98	623.07	638.07	660.66	669.37	675.07	VZ 4
	V-THETA 3	937.68	911.85	881.06	802.97	749.67	726.95	757.70	782.61	800.49	V-THETA 3
	V-THETA 4	-0.00	-25.20	-34.33	43.63	85.35	109.07	103.46	98.84	85.28	V-THETA 4
	M 3	0.8525	0.8504	0.8552	0.8758	0.8447	0.8033	0.7860	0.7800	0.7702	M 3
	M 4	0.4492	0.4655	0.4872	0.5317	0.5374	0.5540	0.5706	0.5765	0.5786	M 4
	TURN (PR)	74.625	72.870	68.500	50.502	44.181	43.259	48.669	52.740	57.471	TURN (PR)
	PT3	18.600	18.790	19.100	20.120	20.130	19.850	19.900	19.920	19.870	PT3
	PT4	18.420	18.600	18.840	19.330	19.260	19.330	19.410	19.440	19.410	PT4
	PS3	11.567	11.711	11.845	12.209	12.620	12.979	13.236	13.327	13.421	PS3
	PS4	16.038	16.033	16.017	15.945	15.824	15.692	15.564	15.519	15.471	PS4
	TT3	620.200	618.100	615.400	608.700	603.500	604.000	610.000	612.700	615.600	TT3
	TT4	620.200	618.100	615.400	608.700	603.500	604.000	610.000	612.700	615.600	TT4

Table B-12. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Percent Equivalent Rotor Speed = 99.95 Equivalent Rotor Speed = 9930.6 Equivalent Weight Flow = 36.90 lb/sec
Circumferential Distortion
Streamline Position = deg
U.S. Customary Units

INLET GUIDE VANE	PCT SPAN	95.90	91.90	87.00	70.90	49.60	29.01	13.71	9.20	4.50	PCT SPAN
	DIA	16.727	16.948	17.219	18.109	19.287	20.426	21.272	21.521	21.781	DIA
STATION 1	BETA 1	-11.300	-10.200	-9.250	-7.350	-7.500	-7.800	-6.900	-6.950	-7.400	BETA 1
STATION 2	BETA 2	7.600	8.100	8.700	8.900	9.400	9.400	10.000	10.000	10.700	BETA 2
	V 1	319.84	318.63	324.01	332.38	332.43	330.98	324.31	318.35	314.59	V 1
	V 2	364.95	382.42	400.07	401.68	408.40	413.45	424.36	419.28	398.88	V 2
	VZ 1	313.64	313.59	319.80	329.65	329.58	327.92	321.96	316.01	311.97	VZ 1
	VZ 2	361.74	378.57	395.40	396.52	402.01	406.15	415.33	410.11	389.02	VZ 2
	V-THETA 1	-62.67	-56.42	-52.08	-42.52	-43.39	-44.92	-38.96	-38.52	-40.52	V-THETA 1
	V-THETA 2	48.27	53.88	60.50	62.09	66.55	67.24	73.23	72.31	73.51	V-THETA 2
	M 1	0.2889	0.2877	0.2927	0.3004	0.3004	0.2991	0.2930	0.2875	0.2840	M 1
	M 2	0.3304	0.3466	0.3630	0.3645	0.3708	0.3755	0.3857	0.3810	0.3619	M 2
	TURN	-18.90	-18.30	-17.95	-16.24	-16.88	-17.16	-16.84	-16.88	-18.02	TURN
	PT1	11.940	11.940	11.970	12.030	12.060	12.080	12.070	12.050	12.040	PT1
	PT2	11.810	11.900	11.995	12.005	12.045	12.075	12.140	12.110	11.995	PT2
	PS1	11.268	11.273	11.279	11.300	11.328	11.353	11.372	11.378	11.384	PS1
	PS2	10.950	10.951	10.951	10.952	10.954	10.955	10.956	10.956	10.957	PS2
	TT1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	TT1
	TT2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	TT2
ROTOR F	PCT SPAN	98.99	90.01	85.01	70.01	49.99	30.01	14.99	10.01	5.01	PCT SPAN
	DIA	16.719	16.937	17.156	17.812	18.688	19.562	20.219	20.437	20.656	DIA
STATION 2	BETA 2	7.600	8.100	8.700	8.900	9.400	9.400	10.000	10.000	10.700	BETA 2
STATION 3	BETA 3	64.710	62.240	59.360	50.640	47.050	47.170	51.870	53.420	55.580	BETA 3
	BETA (PR) 2	61.866	60.912	60.027	61.244	62.406	63.590	63.918	64.510	65.915	BETA (PR) 2
	BETA (PR) 3	-22.123	-17.360	-12.513	-0.754	8.438	14.202	15.395	16.009	16.660	BETA (PR) 3
	V 2	364.95	382.42	400.07	401.68	408.40	413.45	424.36	419.28	398.88	V 2
	V 3	993.16	993.99	995.13	1009.39	972.77	937.59	917.59	911.06	902.32	V 3
	VZ 2	361.74	378.57	395.40	396.52	402.01	406.15	415.33	410.11	389.02	VZ 2
	VZ 3	423.66	462.36	506.98	639.97	662.33	636.44	565.47	541.82	508.94	VZ 3
	V-THETA 2	48.27	53.88	60.50	62.09	66.55	67.24	73.23	72.31	73.51	V-THETA 2
	V-THETA 3	896.67	878.43	855.89	780.22	711.50	686.57	720.39	730.09	742.73	V-THETA 3
	V(PR) 2	767.2	778.7	791.5	824.4	868.3	913.9	945.9	954.2	954.5	V(PR) 2
	V(PR) 3	460.4	487.1	520.0	640.5	670.6	658.5	589.3	566.7	534.5	V(PR) 3
	VTHETA PR2	-676.5	-680.5	-685.6	-722.6	-769.2	-817.8	-848.5	-860.2	-870.3	VTHETA PR2
	VTHETA PR3	172.2	144.5	112.5	8.4	-98.3	-161.1	-155.7	-155.5	-152.3	VTHETA PR3
	U 2	724.79	734.36	746.11	784.67	835.71	885.07	921.73	932.51	943.78	U 2
	U 3	724.44	733.89	743.38	771.80	809.76	847.63	876.10	885.54	895.03	U 3
	M 2	0.3304	0.3466	0.3630	0.3645	0.3708	0.3755	0.3857	0.3810	0.3619	M 2
	M 3	0.8725	0.8747	0.8777	0.8981	0.8648	0.8291	0.8038	0.7955	0.7850	M 3
	M(PR) 2	0.6946	0.7058	0.7182	0.7481	0.7884	0.8301	0.8597	0.8670	0.8661	M(PR) 2
	M(PR) 3	0.4045	0.4286	0.4587	0.5699	0.5961	0.5823	0.5162	0.4948	0.4650	M(PR) 3
	TURN (PR)	83.832	78.171	72.519	61.977	53.926	49.332	48.452	48.433	49.195	TURN (PR)
	PT2	11.810	11.900	11.995	12.005	12.045	12.075	12.140	12.110	11.995	PT2
	PT3	18.850	19.110	19.380	20.390	20.300	20.070	19.920	19.880	19.800	PT3
	PS2	10.950	10.951	10.951	10.952	10.954	10.955	10.956	10.956	10.957	PS2
	PS3	11.479	11.610	11.736	12.080	12.463	12.786	13.019	13.100	13.183	PS3
	TT2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	TT2
	TT3	621.300	619.600	617.300	610.400	605.300	605.300	612.400	614.900	617.600	TT3
STATOR F	PCT SPAN	96.20	92.50	86.80	70.80	49.89	29.71	13.99	9.40	5.00	PCT SPAN
	DIA	16.680	16.776	16.986	17.575	18.345	19.088	19.667	19.836	19.998	DIA
STATION 3	BETA 3	64.710	62.240	59.360	50.640	47.050	47.170	51.870	53.420	55.580	BETA 3
STATION 4	BETA 4	-2.100	-3.600	-5.300	2.100	6.100	7.400	6.500	5.600	4.700	BETA 4
	V 3	993.16	993.99	995.13	1009.39	972.77	937.59	917.59	911.06	902.32	V 3
	V 4	558.88	573.79	594.08	633.27	644.86	651.39	676.22	683.42	686.63	V 4
	VZ 3	423.66	462.36	506.98	639.97	662.33	636.44	565.47	541.82	508.94	VZ 3
	VZ 4	558.50	572.65	591.51	632.72	640.89	645.43	671.14	679.36	683.46	VZ 4
	V-THETA 3	896.67	878.43	855.89	780.22	711.50	686.57	720.39	730.09	742.73	V-THETA 3
	V-THETA 4	-20.48	-36.03	-54.87	23.20	68.49	83.83	76.47	66.61	56.19	V-THETA 4
	M 3	0.8725	0.8747	0.8777	0.8981	0.8648	0.8291	0.8038	0.7955	0.7850	M 3
	M 4	0.4673	0.4810	0.4998	0.5378	0.5507	0.5566	0.5756	0.5809	0.5824	M 4
	TURN (PR)	66.635	65.697	64.626	48.521	40.909	39.683	45.237	47.667	50.707	TURN (PR)
	PT3	18.850	19.110	19.380	20.390	20.300	20.070	19.920	19.880	19.800	PT3
	PT4	18.540	18.700	18.920	19.350	19.380	19.290	19.400	19.420	19.380	PT4
	PS3	11.479	11.610	11.736	12.080	12.463	12.786	13.019	13.100	13.183	PS3
	PS4	15.964	15.962	15.952	15.893	15.771	15.630	15.498	15.452	15.402	PS4
	TT3	621.300	619.600	617.300	610.400	605.300	605.300	612.400	614.900	617.600	TT3
	TT4	621.300	619.600	617.300	610.400	605.300	605.300	612.400	614.900	617.600	TT4

Table B-12. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Percent Equivalent Rotor Speed = 99.95 Equivalent Rotor Speed = 9930.6 Equivalent Weight Flow = 36.90 lb/sec
Circumferential Distortion
Streamline Position = 237 deg
U.S. Customary Units

INLET GUIDE VANE	PCT SPAN	95.90	91.90	87.00	70.90	49.60	29.01	13.71	9.20	4.50	PCT SPAN
	DIA	16.727	16.948	17.219	18.109	19.287	20.426	21.272	21.521	21.781	DIA
STATION 1	BETA 1	-16.400	-15.100	-13.900	-12.500	-12.100	-11.800	-10.700	-11.000	-11.800	BETA 1
STATION 2	BETA 2	4.700	5.400	5.900	7.500	7.800	8.300	8.900	9.000	10.100	BETA 2
	V 1	284.20	295.73	301.50	299.85	301.75	313.21	323.14	315.23	307.34	V 1
	V 2	360.95	370.84	373.75	378.53	378.53	382.31	401.42	395.18	380.42	V 2
	VZ 1	272.64	285.52	292.67	292.74	295.04	306.59	317.52	309.44	300.85	VZ 1
	VZ 2	359.73	369.17	371.70	374.99	374.18	376.67	394.13	387.65	371.73	VZ 2
	V-THETA 1	-80.24	-77.04	-72.43	-64.90	-63.25	-64.05	-60.00	-60.15	-62.85	V-THETA 1
	V-THETA 2	29.57	34.90	38.41	49.37	51.26	54.95	61.72	61.40	66.21	V-THETA 2
	M 1	0.2562	0.2668	0.2720	0.2705	0.2723	0.2828	0.2919	0.2846	0.2774	M 1
	M 2	0.3267	0.3359	0.3386	0.3430	0.3430	0.3465	0.3643	0.3585	0.3448	M 2
	TURN	-21.10	-20.50	-19.80	-19.99	-19.88	-20.06	-19.54	-19.94	-21.82	TURN
	PT1	12.010	12.060	12.090	12.100	12.130	12.200	12.260	12.230	12.200	PT1
	PT2	12.010	12.060	12.075	12.100	12.100	12.120	12.225	12.190	12.110	PT2
	PS1	11.474	11.478	11.484	11.500	11.521	11.541	11.556	11.561	11.565	PS1
	PS2	11.154	11.154	11.154	11.154	11.154	11.154	11.154	11.154	11.154	PS2
	TT1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	TT1
	TT2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	TT2
ROTOR F	PCT SPAN	98.99	90.01	85.01	70.01	49.99	30.01	14.99	10.01	5.01	PCT SPAN
	DIA	16.719	16.937	17.156	17.812	18.688	19.562	20.219	20.437	20.656	DIA
STATION 2	BETA 2	4.700	5.400	5.900	7.500	7.800	8.300	8.900	9.000	10.100	BETA 2
STATION 3	BETA 3	67.310	63.640	60.020	52.240	48.390	47.990	52.680	54.320	56.370	BETA 3
	BETA(PR) 2	62.641	62.176	62.290	62.979	64.500	65.594	65.379	66.011	67.043	BETA(PR) 2
	BETA(PR) 3	-22.020	-15.219	-9.586	1.242	10.706	15.825	17.326	17.840	18.296	BETA(PR) 3
	V 2	360.95	370.84	373.75	378.53	378.53	382.31	401.42	395.18	380.42	V 2
	V 3	946.13	947.81	951.17	960.38	927.96	910.10	891.65	887.30	882.98	V 3
	VZ 2	359.73	369.17	371.70	374.99	374.18	376.67	394.13	387.65	371.73	VZ 2
	VZ 3	364.53	420.33	475.14	587.94	615.80	608.21	539.57	516.50	488.01	VZ 3
	V-THETA 2	29.57	34.90	38.41	49.37	51.26	54.95	61.72	61.40	66.21	V-THETA 2
	V-THETA 3	871.87	848.24	823.62	759.06	693.34	675.24	707.78	719.32	733.68	V-THETA 3
	V(PR) 2	782.8	790.9	799.4	825.5	869.5	912.3	947.1	954.6	954.2	V(PR) 2
	V(PR) 3	395.9	438.1	482.5	588.5	627.6	634.1	567.8	545.5	517.1	V(PR) 3
	VTHETA PR2	-695.2	-699.5	-707.7	-735.3	-784.5	-830.1	-860.0	-871.1	-877.6	VTHETA PR2
	VTHETA PR3	147.4	114.4	80.2	-12.7	-116.4	-172.4	-168.3	-166.2	-161.4	VTHETA PR3
	U 2	724.79	734.36	746.11	784.67	835.71	885.07	921.73	932.51	943.78	U 2
	U 3	724.44	733.89	743.38	771.80	809.76	847.63	876.10	885.54	895.03	U 3
	M 2	0.3267	0.3359	0.3386	0.3430	0.3430	0.3465	0.3643	0.3585	0.3448	M 2
	M 3	0.8261	0.8293	0.8345	0.8486	0.8197	0.8015	0.7783	0.7722	0.7662	M 3
	M(PR) 2	0.7086	0.7164	0.7242	0.7481	0.7879	0.8269	0.8595	0.8659	0.8648	M(PR) 2
	M(PR) 3	0.3457	0.3833	0.4233	0.5200	0.5544	0.5584	0.4957	0.4747	0.4487	M(PR) 3
	TURN(PR)	84.504	77.306	71.860	61.719	53.758	49.722	47.996	48.118	48.702	TURN(PR)
	PT2	12.010	12.060	12.075	12.100	12.100	12.120	12.225	12.190	12.110	PT2
	PT3	18.610	18.870	19.160	19.960	19.950	20.070	19.960	19.960	19.970	PT3
	PS2	11.154	11.154	11.154	11.154	11.154	11.154	11.154	11.154	11.154	PS2
	PS3	11.892	12.019	12.139	12.464	12.832	13.147	13.376	13.456	13.540	PS3
	TT2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	TT2
	TT3	620.300	618.300	615.900	609.800	605.000	605.500	612.300	615.000	617.500	TT3
STATOR F	PCT SPAN	96.20	92.50	86.80	70.80	49.89	29.71	13.99	9.40	5.00	PCT SPAN
	DIA	16.640	16.776	16.986	17.575	18.345	19.088	19.667	19.836	19.998	DIA
STATION 3	BETA 3	67.310	63.640	60.020	52.240	48.390	47.990	52.680	54.320	56.370	BETA 3
STATION 4	BETA 4	1.300	-0.400	-4.200	4.000	7.700	8.200	7.700	8.100	7.700	BETA 4
	V 3	946.13	947.81	951.17	960.38	927.96	910.10	891.65	887.30	882.98	V 3
	V 4	545.87	565.31	588.17	641.37	661.89	665.24	699.03	708.81	715.25	V 4
	VZ 3	364.53	420.33	475.14	587.94	615.80	608.21	539.57	516.50	488.01	VZ 3
	VZ 4	545.73	565.28	586.56	639.67	655.60	657.89	691.97	700.92	707.92	VZ 4
	V-THETA 3	871.87	848.24	823.62	759.06	693.34	675.24	707.78	719.32	733.68	V-THETA 3
	V-THETA 4	12.38	-3.95	-43.07	44.73	88.64	94.80	93.56	99.76	95.71	V-THETA 4
	M 3	0.8261	0.8293	0.8345	0.8486	0.8197	0.8015	0.7783	0.7722	0.7662	M 3
	M 4	0.4563	0.4741	0.4952	0.5454	0.5663	0.5691	0.5964	0.6039	0.6085	M 4
	TURN(PR)	65.849	63.902	64.186	48.221	40.650	39.704	44.849	46.072	48.502	TURN(PR)
	PT3	18.610	18.870	19.160	19.960	19.950	20.070	19.960	19.960	19.970	PT3
	PT4	18.260	18.460	18.700	19.280	19.420	19.270	19.490	19.540	19.540	PT4
	PS3	11.892	12.019	12.139	12.464	12.832	13.147	13.376	13.456	13.540	PS3
	PS4	15.830	15.827	15.815	15.750	15.623	15.470	15.323	15.272	15.217	PS4
	TT3	620.300	618.300	615.900	609.800	605.000	605.500	612.300	615.000	617.500	TT3
	TT4	620.300	618.300	615.900	609.800	605.000	605.500	612.300	615.000	617.500	TT4

Table B-12. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Percent Equivalent Rotor Speed = 99.95 Equivalent Rotor Speed = 9930.6 Equivalent Weight Flow = 36.90 lb/sec
Circumferential Distortion
Streamline Position = 267 deg
U.S. Customary Units

INLET GUIDE VANE	PCT SPAN	95.90	91.90	87.00	70.90	49.60	29.01	13.71	9.20	4.50	PCT SPAN
	DIA	16.727	16.948	17.219	18.109	19.287	20.426	21.272	21.521	21.781	DIA
STATION 1	BETA 1	-25.300	-24.800	-23.500	-21.350	-20.400	-20.350	-20.400	-21.500	-23.900	BETA 1
STATION 2	BETA 2	3.600	3.300	3.600	4.600	5.100	5.900	6.200	6.400	7.200	BETA 2
	V 1	348.00	366.05	406.88	387.56	374.76	420.72	367.72	384.08	349.06	V 1
	V 2	330.75	325.38	353.66	347.48	370.96	372.62	422.81	420.47	416.47	V 2
	VZ 1	314.62	332.29	373.13	360.96	351.25	394.46	344.66	357.35	319.13	VZ 1
	VZ 2	330.09	324.81	352.90	346.08	368.64	369.03	417.70	414.96	410.04	VZ 2
	V-THETA 1	-148.72	-153.54	-162.24	-141.10	-130.63	-146.31	-128.18	-140.77	-141.42	V-THETA 1
	V-THETA 2	20.77	18.73	22.20	27.84	32.90	38.14	45.38	46.54	51.80	V-THETA 2
	M 1	0.3148	0.3314	0.3694	0.3514	0.3395	0.3823	0.3330	0.3482	0.3158	M 1
	M 2	0.2989	0.2939	0.3200	0.3143	0.3360	0.3375	0.3843	0.3821	0.3783	M 2
	TURN	-28.90	-28.10	-27.10	-25.95	-25.49	-26.22	-26.56	-27.86	-31.05	TURN
	PT1	12.460	12.560	12.800	12.720	12.690	13.000	12.720	12.820	12.640	PT1
	PT2	12.280	12.250	12.380	12.330	12.425	12.410	12.680	12.660	12.630	PT2
	PS1	11.633	11.640	11.649	11.679	11.717	11.753	11.780	11.789	11.796	PS1
	PS2	11.582	11.537	11.532	11.514	11.491	11.469	11.452	11.447	11.442	PS2
	TT1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	TT1
	TT2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	TT2
ROTOR F	PCT SPAN	94.99	90.01	85.01	70.01	49.99	30.01	14.99	10.01	5.01	PCT SPAN
	DIA	16.719	16.937	17.156	17.812	18.688	19.562	20.219	20.437	20.656	DIA
STATION 2	BETA 2	3.600	3.300	3.600	4.600	5.100	5.900	6.200	6.400	7.200	BETA 2
STATION 3	BETA 3	62.490	58.260	53.980	45.400	41.640	42.230	45.220	46.830	49.110	BETA 3
	BETA (PR) 2	64.880	65.588	64.011	65.427	65.336	66.456	64.516	64.903	65.312	BETA (PR) 2
	BETA (PR) 3	-22.703	-15.651	-9.490	2.122	10.837	15.499	16.427	16.345	15.915	BETA (PR) 3
	V 2	330.75	325.38	353.66	347.48	370.96	372.62	422.81	420.47	416.47	V 2
	V 3	1046.11	1045.61	1046.75	1046.10	1003.66	967.74	957.29	954.82	952.26	V 3
	VZ 2	330.09	324.81	352.90	346.08	368.64	369.03	417.70	414.96	410.04	VZ 2
	VZ 3	482.39	549.14	615.27	734.27	749.42	715.29	672.61	651.48	621.56	VZ 3
	V-THETA 2	20.77	18.73	22.20	27.84	32.90	38.14	45.38	46.54	51.80	V-THETA 2
	V-THETA 3	926.26	887.74	846.22	744.59	666.30	649.27	677.79	694.48	717.81	V-THETA 3
	V (PR) 2	777.6	785.9	805.4	832.3	883.8	924.5	972.0	979.6	983.1	V (PR) 2
	V (PR) 3	526.4	573.5	624.6	735.3	764.2	744.5	704.5	682.6	650.4	V (PR) 3
	VTHETA PR2	-704.0	-715.6	-723.9	-756.8	-802.8	-846.9	-876.3	-886.0	-892.0	VTHETA PR2
	VTHETA PR3	201.8	153.9	102.8	-27.2	-143.5	-198.4	-198.3	-191.1	-177.2	VTHETA PR3
	U 2	724.79	734.36	746.11	784.67	835.71	885.07	921.73	932.51	943.78	U 2
	U 3	724.44	733.89	743.38	771.80	809.76	847.63	876.10	885.54	895.03	U 3
	M 2	0.2989	0.2939	0.3200	0.3143	0.3360	0.3375	0.3843	0.3821	0.3783	M 2
	M 3	0.9211	0.9233	0.9283	0.9364	0.8980	0.8605	0.8450	0.8400	0.8346	M 3
	M (PR) 2	0.7027	0.7100	0.7287	0.7528	0.8005	0.8374	0.8833	0.8901	0.8930	M (PR) 2
	M (PR) 3	0.4635	0.5064	0.5539	0.6582	0.6837	0.6620	0.6218	0.6004	0.5700	M (PR) 3
	TURN (PR)	87.422	81.148	73.484	63.288	54.465	50.911	48.025	48.492	49.329	TURN (PR)
	PT2	12.280	12.250	12.380	12.330	12.425	12.410	12.680	12.660	12.630	PT2
	PT3	20.590	20.880	21.230	22.060	21.800	21.460	21.470	21.480	21.490	PT3
	PS2	11.542	11.537	11.532	11.514	11.491	11.469	11.452	11.447	11.442	PS2
	PS3	11.896	12.035	12.169	12.531	12.918	13.235	13.457	13.533	13.614	PS3
	TT2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	TT2
	TT3	627.800	624.700	620.300	610.400	603.700	604.300	610.400	613.600	617.200	TT3
STATOR F	PCT SPAN	96.20	92.50	86.80	70.80	49.89	29.71	13.99	9.40	5.00	PCT SPAN
	DIA	16.640	16.776	16.986	17.575	18.345	19.088	19.667	19.836	19.998	DIA
STATION 3	BETA 3	62.490	58.260	53.980	45.400	41.640	42.230	45.220	46.830	49.110	BETA 3
STATION 4	BETA 4	6.800	8.000	8.900	10.000	9.000	9.400	10.500	10.000	11.100	BETA 4
	V 3	1046.11	1045.61	1046.75	1046.10	1003.66	967.74	957.29	954.82	952.26	V 3
	V 4	713.31	726.54	743.87	778.91	796.97	773.73	802.00	814.15	820.50	V 4
	VZ 3	482.39	549.14	615.27	734.27	749.42	715.29	672.61	651.48	621.56	VZ 3
	VZ 4	708.29	719.46	734.88	766.93	786.77	762.71	787.72	800.86	804.17	VZ 4
	V-THETA 3	926.26	887.74	846.22	744.59	666.30	649.27	677.79	694.48	717.81	V-THETA 3
	V-THETA 4	84.46	101.11	115.08	135.23	124.61	126.27	145.99	141.21	157.77	V-THETA 4
	M 3	0.9211	0.9233	0.9283	0.9364	0.8980	0.8605	0.8450	0.8400	0.8346	M 3
	M 4	0.6014	0.6150	0.6332	0.6715	0.6927	0.6703	0.6933	0.7028	0.7066	M 4
	TURN (PR)	55.504	50.105	45.043	35.382	32.601	32.745	36.587	36.676	37.834	TURN (PR)
	PT3	20.590	20.880	21.230	22.060	21.800	21.460	21.470	21.480	21.490	PT3
	PT4	20.300	20.510	20.780	21.310	21.430	20.700	20.840	20.920	20.890	PT4
	PS3	11.896	12.035	12.169	12.531	12.918	13.235	13.457	13.533	13.614	PS3
	PS4	15.898	15.890	15.863	15.752	15.550	15.317	15.114	15.044	14.972	PS4
	TT3	627.800	624.700	620.300	610.400	603.700	604.300	610.400	613.600	617.200	TT3
	TT4	627.800	624.700	620.300	610.400	603.700	604.300	610.400	613.600	617.200	TT4

Table B-12. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Percent Equivalent Rotor Speed = 99.95 Equivalent Rotor Speed = 9930.6 Equivalent Weight Flow = 36.90 lb/sec
Circumferential Distortion
Streamline Position = 297 deg
U.S. Customary Units

INLET GUIDE VANE	PCT SPAN	95.90	91.90	87.00	70.90	49.60	29.01	13.71	9.20	4.50	PCT SPAN
	DIA	16.727	16.948	17.219	18.109	19.287	20.426	21.272	21.521	21.781	DIA
STATION 1	BETA 1	-16.850	-15.400	-13.600	-12.600	-11.800	-11.800	-11.400	-12.100	-12.900	BETA 1
STATION 2	BETA 2	9.600	9.100	8.800	9.600	10.700	10.800	11.000	11.700	13.700	BETA 2
	V 1	454.84	471.93	475.18	480.68	480.62	477.22	456.08	444.77	430.54	V 1
	V 2	474.83	481.57	500.67	519.16	525.62	526.30	513.47	504.09	487.06	V 2
	VZ 1	435.31	454.98	461.86	469.10	470.46	467.13	447.08	434.88	419.67	VZ 1
	VZ 2	468.17	475.47	494.69	511.47	515.32	514.78	500.95	490.30	469.75	VZ 2
	V-THETA 1	-131.84	-125.32	-111.74	-104.86	-98.28	-97.59	-90.15	-93.23	-96.12	V-THETA 1
	V-THETA 2	79.18	76.16	76.58	86.51	97.37	98.20	97.38	101.54	114.51	V-THETA 2
	M 1	0.4143	0.4295	0.4335	0.4387	0.4387	0.4355	0.4155	0.4048	0.3915	M 1
	M 2	0.4332	0.4396	0.4577	0.4754	0.4816	0.4822	0.4700	0.4610	0.4448	M 2
	TURN	-26.45	-24.50	-22.40	-22.19	-22.48	-22.55	-22.33	-23.72	-26.50	TURN
	PT1	13.900	14.040	14.080	14.170	14.230	14.260	14.140	14.070	13.980	PT1
	PT2	13.695	13.750	13.905	14.070	14.140	14.160	14.060	13.985	13.850	PT2
	PS1	12.351	12.361	12.374	12.415	12.468	12.518	12.556	12.568	12.578	PS1
	PS2	12.038	12.041	12.044	12.053	12.065	12.077	12.086	12.089	12.091	PS2
	TT1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	TT1
	TT2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	TT2
ROTOR F	PCT SPAN	94.99	90.01	85.01	70.01	49.99	30.01	14.99	10.01	5.01	PCT SPAN
	DIA	16.719	16.937	17.156	17.812	18.688	19.562	20.219	20.437	20.656	DIA
STATION 2	BETA 2	9.600	9.100	8.800	9.600	10.700	10.800	11.000	11.700	13.700	BETA 2
STATION 3	BETA 3	58.900	55.260	51.680	44.220	42.260	42.740	45.220	47.500	50.970	BETA 3
	BETA (PR) 2	54.052	54.156	53.541	53.774	55.087	56.807	58.713	59.458	60.470	BETA(PR) 2
	BETA (PR) 3	-9.287	-8.638	-0.425	7.135	14.469	19.645	22.711	24.065	25.600	BETA(PR) 3
	V 2	474.83	481.57	500.67	519.16	525.62	526.30	513.47	504.09	487.06	V 2
	V 3	940.63	948.19	953.59	980.89	938.59	902.50	874.25	854.58	832.08	V 3
	VZ 2	468.17	475.47	494.69	511.47	515.32	514.78	500.95	490.30	469.75	VZ 2
	VZ 3	484.84	539.26	590.97	702.72	694.07	661.67	614.27	575.82	522.59	VZ 3
	V-THETA 2	79.18	76.16	76.58	86.51	97.37	98.20	97.38	101.54	114.51	V-THETA 2
	V-THETA 3	803.73	777.64	747.76	683.84	630.67	611.43	619.00	628.39	644.65	V-THETA 3
	V(PR) 2	797.5	812.0	832.5	865.7	901.1	941.5	966.3	966.6	954.9	V(PR) 2
	V(PR) 3	495.1	544.3	591.8	708.7	717.8	704.6	668.8	633.7	582.6	V(PR) 3
	VTHETA PR2	-645.6	-658.2	-669.5	-698.2	-738.3	-786.9	-824.4	-831.0	-829.3	VTHETA PR2
	VTHETA PR3	79.3	43.7	4.4	-88.0	-179.1	-236.2	-257.1	-257.1	-250.4	VTHETA PR3
	U 2	724.79	734.36	746.11	784.67	835.71	885.07	921.73	932.51	943.78	U 2
	U 3	724.44	733.89	743.38	771.80	809.76	847.63	876.10	885.54	895.03	U 3
	M 2	0.4332	0.4396	0.4577	0.4754	0.4816	0.4822	0.4700	0.4610	0.4448	M 2
	M 3	0.8313	0.8404	0.8481	0.8815	0.8422	0.8053	0.7745	0.7542	0.7313	M 3
	M(PR) 2	0.7276	0.7412	0.7611	0.7927	0.8256	0.8627	0.8844	0.8840	0.8720	M(PR) 2
	M(PR) 3	0.4375	0.4824	0.5263	0.6369	0.6441	0.6287	0.5925	0.5592	0.5121	M(PR) 3
	TURN (PR)	63.267	58.765	53.960	46.621	40.577	37.104	35.943	35.341	34.828	TURN(PR)
	PT2	13.695	13.750	13.905	14.070	14.140	14.160	14.060	13.985	13.850	PT2
	PT3	20.090	20.460	20.800	22.060	21.720	21.370	21.030	20.720	20.380	PT3
	PS2	12.038	12.041	12.044	12.053	12.065	12.077	12.086	12.089	12.091	PS2
	PS3	12.770	12.884	12.995	13.305	13.653	13.946	14.145	14.211	14.280	PS3
	TT2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	TT2
	TT3	606.400	604.500	601.800	595.300	590.200	590.500	593.800	595.100	596.300	TT3
STATOR F	PCT SPAN	96.20	92.50	86.80	70.80	49.89	29.71	13.99	9.40	5.00	PCT SPAN
	DIA	16.640	16.776	16.986	17.575	18.345	19.088	19.667	19.836	19.998	DIA
STATION 3	BETA 3	58.900	55.260	51.680	44.220	42.260	42.740	45.220	47.500	50.970	BETA 3
STATION 4	BETA 4	8.900	9.400	10.000	10.100	8.300	8.500	7.600	8.000	7.500	BETA 4
	V 3	940.63	948.19	953.59	980.89	938.59	902.50	874.25	854.58	832.08	V 3
	V 4	668.00	709.14	737.97	798.31	798.45	770.94	780.50	780.02	777.13	V 4
	VZ 3	484.84	539.26	590.97	702.72	694.07	661.67	614.27	575.82	522.59	VZ 3
	VZ 4	679.71	699.61	726.73	785.78	789.69	761.83	772.80	771.53	769.53	VZ 4
	V-THETA 3	803.73	777.64	747.76	683.84	630.67	611.43	619.00	628.39	644.65	V-THETA 3
	V-THETA 4	106.44	115.82	128.14	139.97	115.20	113.86	103.11	108.43	101.31	V-THETA 4
	M 3	0.8313	0.8404	0.8481	0.8815	0.8422	0.8053	0.7745	0.7542	0.7313	M 3
	M 4	0.5894	0.6099	0.6382	0.6993	0.7028	0.6761	0.6832	0.6819	0.6784	M 4
	TURN (PR)	49.800	45.698	41.643	34.102	33.920	34.154	37.484	39.344	43.291	TURN(PR)
	PT3	20.090	20.460	20.800	22.060	21.720	21.370	21.030	20.720	20.380	PT3
	PT4	19.670	19.980	20.420	21.400	21.210	20.420	20.280	20.170	20.040	PT4
	PS3	12.770	12.884	12.995	13.305	13.653	13.946	14.145	14.211	14.280	PS3
	PS4	15.549	15.543	15.525	15.437	15.253	15.038	14.939	14.775	14.710	PS4
	TT3	606.400	604.500	601.800	595.300	590.200	590.500	593.800	595.100	596.300	TT3
	TT4	606.400	604.500	601.800	595.300	590.200	590.500	593.800	595.100	596.300	TT4

Table B-12. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Percent Equivalent Rotor Speed 99.95 Equivalent Rotor Speed 9930.6 Equivalent Weight Flow 36.90 lb/sec
Circumferential Distortion
Streamline Position = 327 deg
U.S. Customary Units

INLET GUIDE VANE	PCT SPAN	95.90	91.90	87.00	70.90	49.60	29.01	13.71	9.20	4.50	PCT SPAN
	DIA	16.727	16.948	17.219	18.109	19.287	20.426	21.272	21.521	21.781	DIA
STATION 1	BETA 1	-6.350	-5.100	-4.250	-3.300	-3.320	-3.650	-4.000	-4.300	-4.600	BETA 1
STATION 2	BETA 2	12.100	11.900	11.000	11.200	12.300	12.500	12.700	13.500	15.300	BETA 2
	V 1	401.51	414.11	430.38	440.06	442.94	436.62	427.05	411.13	403.91	V 1
	V 2	475.57	487.86	505.59	534.19	535.28	529.17	520.61	510.38	495.41	V 2
	VZ 1	399.05	412.47	429.19	439.33	442.19	435.73	426.01	409.97	402.67	VZ 1
	VZ 2	464.99	477.34	496.21	523.69	521.83	514.45	504.80	493.00	474.41	VZ 2
	V-THETA 1	-44.41	-36.81	-31.89	-25.33	-25.65	-27.80	-29.79	-30.83	-32.39	V-THETA 1
	V-THETA 2	99.69	100.59	96.45	103.68	113.78	114.05	113.76	118.36	129.78	V-THETA 2
	M 1	0.3644	0.3761	0.3913	0.4004	0.4031	0.3972	0.3882	0.3733	0.3666	M 1
	M 2	0.4339	0.4456	0.4624	0.4898	0.4909	0.4850	0.4768	0.4670	0.4527	M 2
	TURN	-18.45	-17.00	-15.25	-14.49	-15.59	-16.10	-16.62	-17.71	-19.79	TURN
	PT1	13.840	13.930	14.050	14.150	14.210	14.200	14.160	14.060	14.020	PT1
	PT2	13.605	13.705	13.855	14.125	14.170	14.150	14.100	14.020	13.905	PT2
	PS1	12.627	12.638	12.642	12.670	12.705	12.737	12.762	12.770	12.777	PS1
	PS2	11.954	11.959	11.966	11.988	12.018	12.047	12.069	12.074	12.081	PS2
	TT1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	TT1
	TT2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	TT2
ROTOR F	PCT SPAN	94.99	90.01	85.01	70.01	49.99	30.01	14.99	10.01	5.01	PCT SPAN
	DIA	16.719	16.937	17.156	17.812	18.688	19.562	20.219	20.437	20.656	DIA
STATION 2	BETA 2	12.100	11.900	11.000	11.200	12.300	12.500	12.700	13.500	15.300	BETA 2
STATION 3	BETA 3	61.990	57.300	53.360	45.890	43.600	43.810	47.210	50.130	54.050	BETA 3
	BETA (PR) 2	53.356	53.014	52.627	52.444	54.140	56.287	58.004	58.804	59.766	BETA (PR) 2
	BETA (PR) 3	-12.459	-6.820	-2.550	5.643	12.576	18.441	20.866	21.729	22.853	BETA (PR) 3
	V 2	475.57	487.86	505.59	534.19	535.28	529.17	520.61	510.38	495.41	V 2
	V 3	931.47	946.31	958.64	981.31	952.12	910.13	884.53	867.72	848.77	V 3
	VZ 2	464.99	477.34	496.21	523.60	521.83	514.45	504.80	493.00	474.41	VZ 2
	VZ 3	436.68	510.33	571.82	682.79	688.94	655.68	599.47	554.92	497.14	VZ 3
	V-THETA 2	99.69	100.59	96.45	103.68	113.78	114.05	113.76	118.36	129.78	V-THETA 2
	V-THETA 3	820.92	798.92	768.84	704.34	656.07	628.99	647.60	664.38	685.51	V-THETA 3
	V(PR) 2	779.1	793.4	817.5	859.3	891.5	928.2	954.4	953.6	944.0	V(PR) 2
	V(PR) 3	450.6	517.0	573.2	686.6	706.9	693.2	644.4	600.4	542.6	V(PR) 3
	VTHETA PR2	-625.1	-633.8	-649.7	-681.0	-721.9	-771.0	-808.0	-814.2	-814.0	VTHETA PR2
	VTHETA PR3	96.5	61.0	25.5	-67.5	-153.7	-218.6	-228.5	-221.2	-209.5	VTHETA PR3
	U 2	724.79	734.36	746.11	784.67	835.71	885.07	921.73	932.51	943.78	U 2
	U 3	724.44	733.89	743.38	771.80	809.76	847.63	876.10	885.54	895.03	U 3
	M 2	0.4339	0.4456	0.4624	0.4898	0.4909	0.4850	0.4768	0.4670	0.4527	M 2
	M 3	0.8227	0.8389	0.8534	0.9814	0.8550	0.8128	0.7836	0.7652	0.7451	M 3
	M(PR) 2	0.7108	0.7247	0.7478	0.7879	0.8175	0.8507	0.8741	0.8725	0.8627	M(PR) 2
	M(PR) 3	0.3980	0.4584	0.5102	0.6167	0.6348	0.6191	0.5708	0.5294	0.4763	M(PR) 3
	TURN (PR)	65.720	59.791	55.168	46.783	41.520	37.785	37.070	37.010	36.856	TURN (PR)
	PT2	13.605	13.705	13.855	14.125	14.170	14.150	14.100	14.020	13.905	PT2
	PT3	20.040	20.560	21.060	22.240	22.240	21.790	21.490	21.220	20.930	PT3
	PS2	11.954	11.959	11.966	11.988	12.018	12.047	12.068	12.074	12.081	PS2
	PS3	12.851	12.967	13.085	13.416	13.795	14.113	14.328	14.402	14.479	PS3
	TT2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	TT2
	TT3	605.700	604.000	601.600	596.000	591.500	590.700	595.400	597.800	600.000	TT3
STATOR F	PCT SPAN	96.20	92.50	86.80	70.80	49.89	29.71	13.99	9.40	5.00	PCT SPAN
	DIA	16.640	16.776	16.986	17.575	18.345	19.088	19.667	19.836	19.998	DIA
STATION 3	BETA 3	61.990	57.300	53.360	45.890	43.600	43.810	47.210	50.130	54.050	BETA 3
STATION 4	BETA 4	6.200	6.900	8.200	10.000	8.600	8.400	8.900	9.300	9.200	BETA 4
	V 3	931.47	946.31	958.64	981.31	952.12	910.13	884.53	867.72	848.77	V 3
	V 4	692.59	722.64	760.44	827.34	829.37	798.79	812.05	814.47	812.48	V 4
	VZ 3	436.68	510.33	571.82	682.79	688.94	655.68	599.47	554.92	497.14	VZ 3
	VZ 4	688.54	717.40	752.62	814.61	819.64	789.56	801.40	802.83	801.04	VZ 4
	V-THETA 3	820.92	794.92	768.84	704.34	656.07	628.99	647.60	664.38	685.51	V-THETA 3
	V-THETA 4	74.80	86.81	108.45	143.64	123.96	116.59	125.50	131.47	129.74	V-THETA 4
	M 3	0.8227	0.8389	0.8534	0.8814	0.8550	0.8128	0.7836	0.7652	0.7451	M 3
	M 4	0.5940	0.6226	0.6594	0.7269	0.7320	0.7028	0.7125	0.7133	0.7099	M 4
	TURN (PR)	55.602	50.243	45.123	35.872	34.960	35.324	38.176	40.677	44.679	TURN (PR)
	PT3	20.040	20.560	21.060	22.240	22.240	21.790	21.490	21.220	20.930	PT3
	PT4	19.590	20.030	20.620	21.740	21.540	20.640	20.530	20.450	20.290	PT4
	PS3	12.851	12.967	13.085	13.416	13.795	14.113	14.328	14.402	14.479	PS3
	PS4	15.431	15.423	15.401	15.295	15.084	14.843	14.635	14.568	14.498	PS4
	TT3	605.700	604.000	601.600	596.000	591.500	590.700	595.400	597.800	600.000	TT3
	TT4	605.700	604.000	601.600	596.000	591.500	590.700	595.400	597.800	600.000	TT4

ORIGINAL PAGE IS
OF POOR QUALITY

Table B-12. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Percent Equivalent Rotor Speed = 99.95 Equivalent Rotor Speed = 9930.6 Equivalent Weight Flow = 36.90 lb/sec
Circumferential Distortion
Streamline Position = 357 deg
U.S. Customary Units

INLET GUIDE VANE	PCT SPAN	95.90	91.90	87.00	70.90	49.60	29.01	13.71	9.20	4.50	PCT SPAN
	DIA	16.727	16.948	17.219	18.109	19.287	20.426	21.272	21.521	21.781	DIA
STATION 1	BETA 1	-0.400	0.450	0.880	1.300	1.350	0.680	0.480	0.450	0.450	BETA 1
STATION 2	BETA 2	13.800	13.300	13.000	13.700	14.400	15.300	16.300	16.800	17.400	BETA 2
	V 1	396.20	410.65	422.54	434.15	434.45	430.85	416.94	402.10	392.25	V 1
	V 2	497.08	511.89	531.03	547.53	545.50	541.26	533.30	525.21	508.46	V 2
	VZ 1	396.19	410.64	422.49	434.04	434.32	430.81	416.92	402.08	392.24	VZ 1
	VZ 2	482.72	498.13	517.33	531.53	527.21	519.94	508.87	499.57	481.78	VZ 2
	V-THETA 1	-2.77	3.23	6.49	9.85	10.24	5.11	3.49	3.16	3.08	V-THETA 1
	V-THETA 2	118.57	117.75	119.44	129.57	135.36	142.24	148.80	150.83	150.98	V-THETA 2
	M 1	0.3594	0.3729	0.3840	0.3949	0.3952	0.3918	0.3788	0.3649	0.3558	M 1
	M 2	0.4543	0.4685	0.4868	0.5027	0.5007	0.4966	0.4890	0.4812	0.4652	M 2
	TURN	-14.20	-12.85	-12.12	-12.39	-13.02	-14.56	-15.72	-16.24	-16.12	TURN
	PT1	13.850	13.950	14.040	14.150	14.190	14.200	14.130	14.040	13.990	PT1
	PT2	13.695	13.820	13.990	14.160	14.170	14.160	14.110	14.045	13.910	PT2
	PS1	12.667	12.673	12.682	12.708	12.742	12.774	12.798	12.806	12.818	PS1
	PS2	11.887	11.891	11.897	11.916	11.940	11.964	11.982	11.987	11.993	PS2
	TT1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	TT1
	TT2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	TT2
ROTOR F	PCT SPAN	94.99	90.01	85.01	70.01	49.99	30.01	14.99	10.01	5.01	PCT SPAN
	DIA	16.719	16.937	17.156	17.812	18.688	19.562	20.219	20.437	20.656	DIA
STATION 2	BETA 2	13.800	13.300	13.000	13.700	14.400	15.300	16.300	16.800	17.400	BETA 2
STATION 3	BETA 3	65.440	60.460	56.110	48.540	45.410	46.860	51.920	54.370	57.400	BETA 3
	BETA (PB) 2	51.470	51.067	50.460	50.945	53.028	55.010	56.640	57.418	58.713	BETA (PB) 2
	BETA (PB) 3	-18.820	-11.890	-6.644	2.507	10.068	16.150	18.851	19.914	21.430	BETA (PB) 3
	V 2	497.08	511.89	531.03	547.53	545.50	541.26	533.30	525.21	508.46	V 2
	V 3	944.74	959.24	971.94	991.83	968.44	915.08	879.79	866.63	850.90	V 3
	VZ 2	482.72	498.13	517.33	531.53	527.21	519.94	508.87	499.57	481.78	VZ 2
	VZ 3	392.14	472.24	541.73	656.48	679.35	624.77	541.57	503.86	457.55	VZ 3
	V-THETA 2	118.57	117.75	119.44	129.57	135.36	142.24	148.80	150.83	150.98	V-THETA 2
	V-THETA 3	858.09	833.32	806.48	743.06	689.15	666.71	691.19	703.01	715.44	V-THETA 3
	V(PR) 2	774.9	792.7	812.7	843.9	877.3	908.0	927.2	929.6	929.7	V(PR) 2
	V(PB) 3	417.2	485.4	546.1	657.6	691.0	652.4	574.9	538.7	494.4	V(PB) 3
	VTHETA PB2	-606.2	-616.6	-626.7	-655.1	-700.3	-742.8	-772.9	-781.7	-792.8	VTHETA PB2
	VTHETA PB3	133.6	99.4	63.1	-28.7	-120.6	-180.9	-184.9	-182.5	-179.6	VTHETA PB3
	U 2	724.79	734.36	746.11	784.67	835.71	885.07	921.73	932.51	943.78	U 2
	U 3	724.44	733.89	743.38	771.80	809.76	847.63	876.10	885.54	895.03	U 3
	M 2	0.4543	0.4685	0.4868	0.5027	0.5007	0.4966	0.4890	0.4812	0.4652	M 2
	M 3	0.8341	0.8500	0.8652	0.8908	0.8707	0.8170	0.7780	0.7634	0.7462	M 3
	M(PB) 2	0.7083	0.7254	0.7450	0.7747	0.8053	0.8331	0.8501	0.8517	0.8505	M(PB) 2
	M(PB) 3	0.3684	0.4301	0.4861	0.5906	0.6212	0.5825	0.5084	0.4745	0.4336	M(PB) 3
	TURN (PB)	70.152	62.886	57.090	48.417	42.912	38.791	37.710	37.427	37.216	TURN (PB)
	PT2	13.695	13.820	13.990	14.160	14.170	14.160	14.110	14.045	13.910	PT2
	PT3	20.110	20.650	21.190	22.380	22.580	21.900	21.430	21.250	21.030	PT3
	PS2	11.887	11.891	11.897	11.916	11.940	11.964	11.982	11.987	11.993	PS2
	PS3	12.746	12.875	13.004	13.364	13.777	14.124	14.365	14.447	14.532	PS3
	TT2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	TT2
	TT3	608.100	606.500	603.800	597.700	592.900	591.700	596.500	598.8	601.300	TT3
STATOR F	PCT SPAN	96.20	92.50	86.80	70.80	49.89	29.71	13.99	9.40	5.00	PCT SPAN
	DIA	16.640	16.776	16.986	17.575	18.345	19.088	19.667	19.836	19.998	DIA
STATION 3	BETA 3	65.440	60.460	56.110	48.540	45.410	46.860	51.920	54.370	57.400	BETA 3
STATION 4	BETA 4	4.900	5.600	7.500	9.000	7.800	7.900	8.700	8.900	8.600	BETA 4
	V 3	944.74	959.24	971.94	991.83	968.44	915.08	879.79	866.63	850.90	V 3
	V 4	702.02	732.52	768.44	836.18	838.30	816.13	812.18	813.89	813.70	V 4
	VZ 3	392.14	472.24	541.73	656.48	679.35	624.77	541.57	503.86	457.55	VZ 3
	VZ 4	699.[illegible]	729.01	761.83	825.72	830.13	807.71	801.96	803.16	803.56	VZ 4
	V-THETA 3	858.09	833.32	806.48	743.06	689.15	666.71	691.19	703.01	715.44	V-THETA 3
	V-THETA 4	59.96	71.48	100.30	130.78	113.71	112.08	122.72	125.77	121.53	V-THETA 4
	M 3	0.8341	0.8500	0.8652	0.8908	0.8707	0.8170	0.7780	0.7634	0.7462	M 3
	M 4	0.6014	0.6304	0.6656	0.7344	0.7397	0.7189	0.7119	0.7121	0.7102	M 4
	TURN (PB)	60.369	54.711	48.574	39.522	37.570	38.874	43.089	45.323	48.636	TURN (PB)
	PT3	20.110	20.650	21.190	22.380	22.580	21.900	21.430	21.250	21.030	PT3
	PT4	19.660	20.110	20.680	21.830	21.630	20.880	20.460	20.370	20.240	PT4
	PS3	12.746	12.875	13.004	13.364	13.777	14.124	14.365	14.447	14.532	PS3
	PS4	15.397	15.387	15.364	15.253	15.038	14.798	14.593	14.527	14.458	PS4
	TT3	608.100	606.500	603.800	597.700	592.900	591.700	596.500	598.800	601.300	TT3
	TT4	608.100	606.500	603.800	597.700	592.900	591.700	596.500	598.800	601.300	TT4

Table B-12. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Percent Equivalent Rotor Speed 99.92 Equivalent Rotor Speed 9928.5 Equivalent Weight Flow 34.85 lb/sec
Circumferential Distortion
Streamline Position .27 deg
U.S. Customary Units

INLET GUIDE VANE	PCT SPAN	95.90	91.90	87.00	70.90	49.60	29.01	13.71	9.20	4.50	PCT SPAN
	DIA	16.727	16.948	17.219	18.109	19.287	20.426	21.272	21.521	21.781	DIA
STATION 1	BETA 1	7.100	7.000	6.900	6.700	6.500	5.950	5.700	5.800	5.900	BETA 1
STATION 2	BETA 2	17.300	17.000	17.300	17.900	19.100	19.200	20.500	21.600	22.300	BETA 2
	V 1	399.73	413.93	418.37	424.36	421.81	407.77	388.22	385.22	369.29	V 1
	V 2	505.14	513.01	521.73	527.49	530.37	526.44	509.08	504.78	496.89	V 2
	VZ 1	396.66	410.85	415.34	421.46	419.10	405.57	386.29	383.25	367.33	VZ 1
	VZ 2	482.28	490.56	498.04	501.58	500.13	495.20	474.18	466.49	456.68	VZ 2
	V-THETA 1	49.41	50.45	50.26	49.51	47.75	42.27	38.56	38.93	37.96	V-THETA 1
	V-THETA 2	150.21	149.98	155.12	162.01	173.19	172.45	177.29	184.70	187.30	V-THETA 2
	M 1	0.3627	0.3760	0.3801	0.3857	0.3833	0.3702	0.3520	0.3492	0.3344	M 1
	M 2	0.4620	0.4695	0.4779	0.4834	0.4861	0.4824	0.4658	0.4617	0.4541	M 2
	TURN	-10.20	-10.00	-10.40	-11.19	-12.56	-13.17	-14.68	-15.66	-16.24	TURN
	PT1	13.960	14.060	14.100	14.170	14.190	14.130	14.030	14.020	13.930	PT1
	PT2	13.900	13.970	14.050	14.120	14.170	14.160	14.030	14.000	13.940	PT2
	PS1	12.747	12.753	12.762	12.788	12.822	12.854	12.878	12.886	12.892	PS1
	PS2	12.008	12.012	12.017	12.034	12.055	12.076	12.092	12.097	12.101	PS2
	TT1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	TT1
	TT2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	TT2
ROTOR F	PCT SPAN	94.99	90.01	85.01	70.01	49.99	30.01	14.99	10.01	5.01	PCT SPAN
	DIA	16.719	16.937	17.156	17.812	18.688	19.562	20.219	20.437	20.656	DIA
STATION 2	BETA 2	17.300	17.000	17.300	17.900	19.100	19.200	20.500	21.600	22.300	BETA 2
STATION 3	BETA 3	66.440	61.230	57.160	50.400	48.080	48.660	54.830	58.430	63.500	BETA 3
	BETA (PR) 2	49.983	49.981	49.871	51.140	52.944	55.198	57.497	58.037	58.874	BETA (PR) 2
	BETA (PR) 3	-24.250	-15.647	-9.749	0.009	7.758	14.122	17.023	18.301	20.502	BETA (PR) 3
	V 2	505.14	513.01	521.73	527.49	530.37	526.44	509.08	504.78	496.89	V 2
	V 3	984.55	990.58	995.32	1001.61	970.13	925.49	882.86	865.01	843.91	V 3
	VZ 2	482.28	490.56	498.04	501.58	500.13	495.20	474.18	466.49	456.68	VZ 2
	VZ 3	393.04	476.09	539.54	638.27	647.69	610.44	507.68	452.15	376.05	VZ 3
	V-THETA 2	150.21	149.98	155.12	162.01	173.19	172.45	177.29	184.70	187.30	V-THETA 2
	V-THETA 3	901.34	867.08	835.92	771.53	721.35	693.87	720.48	735.82	754.23	V-THETA 3
	V(PR) 2	750.0	762.9	772.8	799.7	830.7	868.9	884.1	883.0	885.3	V(PR) 2
	V(PR) 3	433.9	497.2	548.2	638.7	654.7	631.4	533.4	478.7	403.8	V(PR) 3
	VTHETA PR2	-574.4	-584.2	-590.8	-622.5	-662.4	-712.4	-744.2	-747.6	-756.3	VTHETA PR2
	VTHETA PR3	177.1	133.3	92.7	-0.1	-88.2	-153.6	-155.4	-149.5	-140.6	VTHETA PR3
	U 2	724.64	734.21	745.95	784.50	835.54	884.88	921.53	932.32	943.58	U 2
	U 3	724.29	733.73	743.22	771.64	809.59	847.45	875.91	885.36	894.84	U 3
	M 2	0.4620	0.4695	0.4779	0.4834	0.4861	0.4824	0.4658	0.4617	0.4541	M 2
	M 3	0.8737	0.8822	0.8899	0.9019	0.8733	0.8282	0.7818	0.7624	0.7401	M 3
	M(PR) 2	0.6860	0.6982	0.7078	0.7328	0.7614	0.7962	0.8089	0.8075	0.8092	M(PR) 2
	M(PR) 3	0.3851	0.4428	0.4901	0.5751	0.5894	0.5650	0.4723	0.4219	0.3542	M(PR) 3
	TURN (PR)	74.064	65.536	59.602	51.107	45.134	41.001	40.390	39.654	38.301	TURN (PR)
	PT2	13.900	13.970	14.050	14.120	14.170	14.160	14.030	14.000	13.940	PT2
	PT3	20.790	21.220	21.630	22.560	22.600	22.150	21.530	21.260	20.950	PT3
	PS2	12.008	12.012	12.017	12.034	12.055	12.076	12.092	12.097	12.101	PS2
	PS3	12.644	12.789	12.929	13.311	13.750	14.124	14.380	14.468	14.560	PS3
	TT2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	TT2
	TT3	609.100	606.300	603.000	596.700	591.800	590.900	595.600	598.000	600.300	TT3
STATOR F	PCT SPAN	96.20	92.50	86.80	70.80	49.89	29.71	13.99	9.40	5.00	PCT SPAN
	DIA	16.640	16.776	16.986	17.575	18.345	19.088	19.667	19.836	19.998	DIA
STATION 3	BETA 3	66.440	61.230	57.160	50.400	48.080	48.660	54.830	58.430	63.500	BETA 3
STATION 4	BETA 4	5.700	7.100	8.100	9.800	8.600	8.300	7.900	8.100	7.800	BETA 4
	V 3	984.55	990.58	995.32	1001.61	970.13	925.49	882.86	865.01	843.91	V 3
	V 4	674.06	698.31	728.11	794.43	796.26	767.35	759.65	759.15	756.27	V 4
	VZ 3	393.04	476.09	539.54	638.27	647.69	610.44	507.68	452.15	376.05	VZ 3
	VZ 4	670.72	692.95	720.81	782.68	786.92	758.68	751.61	750.70	748.34	VZ 4
	V-THETA 3	901.34	867.08	835.92	771.53	721.35	693.87	720.48	735.82	754.23	V-THETA 3
	V-THETA 4	66.95	86.31	102.59	135.19	119.01	110.68	104.29	106.84	102.51	V-THETA 4
	M 3	0.8737	0.8822	0.8899	0.9019	0.8733	0.8282	0.7818	0.7624	0.7401	M 3
	M 4	0.5753	0.5989	0.6283	0.6947	0.6996	0.6724	0.6622	0.6603	0.6562	M 4
	TURN (PR)	60.574	53.984	49.025	40.582	39.440	40.275	46.802	50.191	55.556	TURN (PR)
	PT3	20.790	21.220	21.630	22.560	22.600	22.150	21.530	21.260	20.950	PT3
	PT4	20.120	20.480	20.940	22.030	21.870	21.070	20.650	20.540	20.390	PT4
	PS3	12.644	12.789	12.929	13.311	13.750	14.124	14.380	14.468	14.560	PS3
	PS4	16.077	16.070	16.050	15.957	15.772	15.562	15.386	15.329	15.270	PS4
	TT3	609.100	606.300	603.000	596.700	591.800	590.900	595.600	598.000	600.300	TT3
	TT4	609.100	606.300	603.000	596.700	591.800	590.900	595.600	598.000	600.300	TT4

Table B-12. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Percent Equivalent Rotor Speed = 99.92 Equivalent Rotor Speed = 9928.5 Equivalent Weight Flow = 34.85 lb/sec
Circumferential Distortion
Streamline Position = 57 deg
U.S. Customary Units

INLET GUIDE VANE	PCT SPAN	95.90	91.90	87.00	70.90	49.60	29.01	13.71	9.20	4.50	PCT SPAN
	DIA	16.727	16.948	17.219	18.109	19.287	20.426	21.272	21.521	21.781	DIA
STATION 1	BETA 1	13.850	13.400	12.900	11.400	11.300	10.250	11.150	11.800	12.400	BETA 1
STATION 2	BETA 2	17.700	17.400	16.900	16.400	17.300	18.300	18.600	18.900	22.000	BETA 2
	V 1	420.05	423.64	438.23	442.99	448.26	445.51	424.01	412.74	402.63	V 1
	V 2	511.58	522.78	528.93	542.10	543.12	536.35	527.00	515.69	507.81	V 2
	VZ 1	407.83	412.10	427.17	438.25	439.56	438.40	416.01	404.02	393.24	VZ 1
	VZ 2	487.35	498.83	506.01	518.29	517.45	507.20	496.63	484.83	467.71	VZ 2
	V-THETA 1	100.55	98.18	97.84	87.56	87.83	79.28	81.99	84.40	86.46	V-THETA 1
	V-THETA 2	155.53	156.32	153.74	157.47	161.17	167.74	167.13	165.99	188.97	V-THETA 2
	M 1	0.3817	0.3850	0.3987	0.4032	0.4081	0.4056	0.3854	0.3748	0.3654	M 1
	M 2	0.4681	0.4789	0.4848	0.4974	0.4984	0.4919	0.4829	0.4721	0.4646	M 2
	TURN	-3.85	-4.00	-4.00	-5.49	-5.96	-7.97	-7.34	-6.98	-9.45	TURN
	PT1	13.950	13.980	14.090	14.150	14.220	14.230	14.100	14.030	13.970	PT1
	PT2	13.800	13.900	13.960	14.100	14.140	14.110	14.050	13.960	13.900	PT2
	PS1	12.616	12.621	12.628	12.651	12.679	12.706	12.727	12.733	12.739	PS1
	PS2	11.876	11.881	11.887	11.907	11.933	11.959	11.978	11.984	11.989	PS2
	TT1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	TT1
	TT2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	TT2
ROTOR F	PCT SPAN	94.99	90.01	85.01	70.01	49.99	30.01	14.99	10.01	5.01	PCT SPAN
	DIA	16.719	16.937	17.156	17.812	18.688	19.562	20.219	20.437	20.656	DIA
STATION 2	BETA 2	17.700	17.400	16.900	16.900	17.300	18.300	18.600	18.900	22.000	BETA 2
STATION 3	BETA 3	68.510	62.620	57.730	48.720	45.860	48.010	52.800	56.760	62.740	BETA 3
	BETA(RR) 2	49.425	49.200	49.488	50.424	52.501	54.730	56.643	57.680	58.210	BETA(RR) 2
	BETA(RR) 3	-28.093	-17.608	-10.147	2.245	9.941	15.337	18.772	19.463	20.501	BETA(RR) 3
	V 2	511.58	522.78	528.93	542.10	543.12	536.35	527.00	515.69	507.81	V 2
	V 3	986.56	990.11	991.36	992.94	964.86	915.77	875.76	861.00	845.23	V 3
	VZ 2	487.35	498.83	506.01	518.29	517.45	507.20	496.63	484.83	467.71	VZ 2
	VZ 3	361.03	454.76	529.09	654.88	671.44	611.76	528.50	471.13	386.59	VZ 3
	V-THETA 2	155.53	156.32	153.74	157.47	161.17	167.74	167.13	165.99	188.97	V-THETA 2
	V-THETA 3	917.00	878.06	837.91	745.96	691.90	679.67	696.28	718.87	750.29	V-THETA 3
	V(RR) 2	749.3	763.4	779.0	813.8	850.8	879.7	904.9	908.6	889.7	V(RR) 2
	V(RR) 3	411.8	479.7	538.2	655.8	682.7	636.3	560.7	502.3	415.2	V(RR) 3
	VTHETA RR2	-569.1	-577.9	-592.2	-627.0	-674.4	-717.1	-754.4	-766.3	-754.6	VTHETA RR2
	VTHETA RR3	192.7	144.3	94.7	-25.7	-117.7	-167.8	-179.6	-166.5	-144.5	VTHETA RR3
	U 2	724.64	734.21	745.95	784.50	835.54	884.88	921.53	932.32	943.58	U 2
	U 3	724.29	733.73	743.22	771.64	809.59	847.45	875.91	885.36	894.84	U 3
	M 2	0.4681	0.4789	0.4848	0.4974	0.4984	0.4919	0.4829	0.4721	0.4646	M 2
	M 3	0.8748	0.8810	0.8857	0.8950	0.8698	0.8194	0.7756	0.7591	0.7419	M 3
	M(RR) 2	0.6857	0.6993	0.7140	0.7467	0.7807	0.8068	0.8292	0.8318	0.8139	M(RR) 2
	M(RR) 3	0.3651	0.4269	0.4809	0.5912	0.6155	0.5693	0.4966	0.4428	0.3644	M(RR) 3
	TURN(RR)	77.330	66.706	59.617	48.157	42.510	39.321	37.790	38.139	37.635	TURN(RR)
	PT2	13.800	13.900	13.960	14.100	14.140	14.110	14.050	13.960	13.900	PT2
	PT3	20.560	20.940	21.280	22.120	22.200	21.610	21.050	20.840	20.630	PT3
	PS2	11.876	11.881	11.887	11.907	11.933	11.959	11.978	11.984	11.989	PS2
	PS3	12.490	12.637	12.777	13.149	13.557	13.904	14.144	14.226	14.314	PS3
	TT2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	TT2
	TT3	610.300	607.200	603.100	594.200	589.500	589.600	594.400	597.000	599.600	TT3
STATOR F	PCT SPAN	96.20	92.50	86.80	70.80	49.89	29.71	13.99	9.40	5.00	PCT SPAN
	DIA	16.640	16.776	16.986	17.575	18.345	19.088	19.667	19.836	19.998	DIA
STATION 3	BETA 3	68.510	62.620	57.730	48.720	45.860	48.010	52.800	56.760	62.740	BETA 3
STATION 4	BETA 4	7.700	7.500	7.900	9.900	9.200	8.400	7.300	7.200	6.300	BETA 4
	V 3	986.56	990.11	991.36	992.94	964.86	915.77	875.76	861.00	845.23	V 3
	V 4	659.69	677.51	701.77	756.12	755.19	728.59	718.79	721.50	725.14	V 4
	VZ 3	361.03	454.76	529.09	654.88	671.44	611.76	528.50	471.13	386.59	VZ 3
	VZ 4	653.74	671.70	695.07	744.71	745.11	720.17	712.18	714.97	719.86	VZ 4
	V-THETA 3	917.00	878.06	837.91	745.96	691.90	679.67	696.28	718.87	750.29	V-THETA 3
	V-THETA 4	88.39	88.43	96.45	129.97	120.68	106.35	91.23	90.32	79.47	V-THETA 4
	M 3	0.8748	0.8810	0.8857	0.8950	0.8698	0.8194	0.7756	0.7591	0.7419	M 3
	M 4	0.5617	0.5794	0.6038	0.6597	0.6617	0.6364	0.6[illegible]4	0.6255	0.6274	M 4
	TURN(RR)	60.655	54.979	49.795	38.802	36.620	39.524	45.369	49.416	56.291	TURN(RR)
	PT3	20.560	20.940	21.280	22.120	22.200	21.610	21.050	20.840	20.630	PT3
	PT4	20.160	20.420	20.780	21.620	21.420	20.720	20.310	20.260	20.220	PT4
	PS3	12.490	12.637	12.777	13.149	13.557	13.904	14.144	14.226	14.314	PS3
	PS4	16.274	16.266	16.243	16.143	15.967	15.776	15.616	15.564	15.509	PS4
	TT3	610.300	607.200	603.100	594.200	589.500	589.600	594.400	597.000	599.600	TT3
	TT4	610.300	607.200	603.100	594.200	589.500	589.600	594.400	597.000	599.600	TT4

Table B-12. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Percent Equivalent Rotor Speed 99.92 Equivalent Rotor Speed 9928.5 Equivalent Weight Flow 34.85 lb/sec
Circumferential Distortion
Streamline Position .87 deg
U.S. Customary Units

INLET GUIDE VANE	PCT SPAN	95.90	91.90	87.00	70.90	49.60	29.01	13.71	9.20	4.50	PCT SPAN
	DIA	16.727	16.948	17.219	18.109	19.287	20.426	21.272	21.521	21.781	DIA
STATION 1	BETA 1	23.100	22.000	21.500	20.000	19.400	18.100	20.200	21.300	23.000	BETA 1
STATION 2	BETA 2	23.200	21.200	20.700	20.700	21.200	23.200	23.900	25.700	27.700	BETA 2
	V 1	448.17	485.71	492.79	521.03	502.56	486.22	478.76	471.99	450.34	V 1
	V 2	546.99	552.68	559.25	568.49	571.99	576.73	563.65	561.54	546.05	V 2
	VZ 1	412.24	450.34	458.50	489.61	474.03	462.15	449.31	439.75	414.54	VZ 1
	VZ 2	502.75	515.24	523.06	531.40	532.20	528.12	512.58	503.11	480.53	VZ 2
	V-THETA 1	175.83	181.95	180.61	178.20	166.93	151.06	165.31	171.45	175.96	V-THETA 1
	V-THETA 2	215.48	199.85	197.65	200.80	206.43	226.35	227.14	242.13	252.29	V-THETA 2
	M 1	0.4081	0.4435	0.4502	0.4772	0.4596	0.4440	0.4369	0.4305	0.4101	M 1
	M 2	0.5021	0.5076	0.5140	0.5229	0.5263	0.5309	0.5182	0.5162	0.5012	M 2
	TURN	-0.10	0.80	0.80	-0.68	-1.76	-5.01	-3.57	-4.28	-4.52	TURN
	PT1	13.570	13.860	13.930	14.210	14.110	14.030	14.010	13.970	13.820	PT1
	PT2	13.630	13.690	13.760	13.880	13.960	14.050	13.960	13.950	13.820	PT2
	PS1	12.100	12.109	12.121	12.159	12.208	12.254	12.288	12.299	12.309	PS1
	PS2	11.474	11.482	11.491	11.520	11.559	11.596	11.624	11.632	11.641	PS2
	TT1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	TT1
	TT2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	TT2
ROTOR F	PCT SPAN	98.99	90.01	85.01	70.01	49.99	30.01	14.99	10.01	5.01	PCT SPAN
	DIA	16.719	16.937	17.156	17.812	18.688	19.562	20.219	20.437	20.656	DIA
STATION 2	BETA 2	23.200	21.200	20.700	20.700	21.200	23.200	23.900	25.700	27.700	BETA 2
STATION 3	BETA 3	76.820	65.850	58.670	49.570	48.070	53.020	59.260	63.560	69.020	BETA 3
	BETA (PR) 2	45.363	46.044	46.389	47.686	49.770	51.272	53.566	53.910	55.196	BETA (PR) 2
	BETA (PR) 3	-40.107	-16.610	-6.125	6.183	13.690	18.374	22.174	23.681	26.735	BETA (PR) 3
	V 2	546.99	552.68	559.25	568.49	571.99	576.73	563.65	561.54	546.05	V 2
	V 3	927.05	929.20	931.24	928.33	893.48	849.60	821.37	812.69	803.93	V 3
	VZ 2	502.75	515.24	523.06	531.40	532.20	528.12	512.58	503.11	480.53	VZ 2
	VZ 3	211.29	379.78	484.04	601.86	596.63	510.47	419.28	361.44	287.59	VZ 3
	V-THETA 2	215.48	199.85	197.65	200.80	206.43	226.35	227.14	242.13	252.29	V-THETA 2
	V-THETA 3	902.26	847.02	795.16	706.44	664.26	677.90	705.03	726.84	749.98	V-THETA 3
	W(PR) 2	715.5	742.3	757.8	789.7	824.8	845.6	865.0	856.2	844.0	W(PR) 2
	W(PR) 3	277.5	398.5	487.5	605.8	615.0	539.5	454.7	396.6	323.7	W(PR) 3
	VTHETA PR2	-509.2	-534.4	-548.3	-583.7	-629.1	-658.5	-694.4	-690.2	-691.3	VTHETA PR2
	VTHETA PR3	178.0	113.3	51.9	-65.2	-145.3	-169.5	-170.9	-158.5	-144.9	VTHETA PR3
	U 2	724.64	734.21	745.95	784.50	835.54	884.88	921.53	932.32	943.58	U 2
	U 3	724.29	733.73	743.22	771.64	809.59	847.45	875.91	885.36	894.84	U 3
	M 2	0.5021	0.5076	0.5140	0.5229	0.5263	0.5309	0.5182	0.5162	0.5012	M 2
	M 3	0.8228	0.8278	0.8333	0.8373	0.8051	0.7594	0.7286	0.7187	0.7084	M 3
	M(PR) 2	0.6569	0.6818	0.6965	0.7268	0.7590	0.7785	0.7953	0.7870	0.7748	M(PR) 2
	M(PR) 3	0.2463	0.3550	0.4362	0.5464	0.5541	0.4822	0.4034	0.3507	0.2853	M(PR) 3
	TURN (PR)	85.247	62.556	52.461	41.483	36.035	32.830	31.319	30.159	28.407	TURN (PR)
	PT2	13.630	13.690	13.760	13.880	13.960	14.050	13.960	13.950	13.820	PT2
	PT3	19.110	19.430	19.730	20.300	20.180	19.760	19.530	19.470	19.410	PT3
	PS2	11.474	11.482	11.491	11.520	11.559	11.596	11.624	11.632	11.641	PS2
	PS3	12.253	12.395	12.516	12.825	13.172	13.486	13.719	13.802	13.888	PS3
	TT2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	TT2
	TT3	599.800	596.200	591.900	583.300	579.000	581.000	585.000	587.100	589.700	TT3
STATOR F	PCT SPAN	96.20	92.50	86.80	70.80	49.89	29.71	13.99	9.40	5.00	PCT SPAN
	DIA	16.640	16.776	16.986	17.575	18.345	19.088	19.667	19.836	19.998	DIA
STATION 3	BETA 3	76.820	65.850	58.670	49.570	48.070	53.020	59.260	63.560	69.020	BETA 3
STATION 4	BETA 4	5.600	5.100	6.300	10.000	10.600	9.500	8.500	8.200	7.600	BETA 4
	V 3	927.05	929.20	931.24	928.33	893.48	849.60	821.37	812.69	803.93	V 3
	V 4	543.42	562.13	585.69	625.73	627.11	609.27	606.96	610.69	615.08	V 4
	VZ 3	211.29	379.78	484.04	601.86	596.63	510.47	419.28	361.44	287.59	VZ 3
	VZ 4	540.82	559.89	582.12	616.10	616.11	600.42	599.64	603.74	608.92	VZ 4
	V-THETA 3	902.26	847.02	795.16	706.44	664.26	677.90	705.03	726.84	749.98	V-THETA 3
	V-THETA 4	53.03	49.97	64.27	108.64	115.30	100.48	89.62	87.00	81.25	V-THETA 4
	M 3	0.8228	0.8278	0.8333	0.8373	0.8051	0.7594	0.7286	0.7187	0.7084	M 3
	M 4	0.4622	0.4803	0.5034	0.5439	0.5473	0.5299	0.5259	0.5283	0.5311	M 4
	TURN (PR)	71.119	60.621	52.336	39.552	37.431	43.438	50.642	55.237	61.301	TURN (PR)
	PT3	19.110	19.430	19.730	20.300	20.180	19.760	19.530	19.470	19.410	PT3
	PT4	18.830	19.040	19.310	19.780	19.700	19.320	19.140	19.130	19.120	PT4
	PS3	12.253	12.395	12.516	12.825	13.172	13.486	13.719	13.802	13.888	PS3
	PS4	16.265	16.259	16.242	16.175	16.070	15.957	15.853	15.818	15.779	PS4
	TT3	599.800	596.200	591.900	583.300	579.000	581.000	585.000	587.100	589.700	TT3
	TT4	599.800	596.200	591.900	583.300	579.000	581.000	585.000	587.100	589.700	TT4

Table B-12. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Percent Equivalent Rotor Speed = 99.92 Equivalent Rotor Speed = 9928.5 Equivalent Weight Flow = 34.85 lb/sec
Circumferential Distortion
Streamline Position = 117 deg
U.S. Customary Units

INLET GUIDE VANE	PCT SPAN	95.90	91.90	87.00	70.90	49.60	29.01	13.71	9.20	4.50	PCT SPAN
	DIA	16.727	16.948	17.219	18.109	19.287	20.426	21.272	21.521	21.781	DIA
STATION 1	BETA 1	13.300	13.100	13.400	12.600	12.200	11.500	11.800	12.400	13.200	BETA 1
STATION 2	BETA 2	21.300	20.400	19.900	19.900	21.400	23.000	23.700	25.000	27.100	BETA 2
	V 1	283.48	287.61	292.06	302.12	304.60	297.58	293.38	277.71	274.55	V 1
	V 2	439.00	440.25	449.26	441.13	442.01	443.06	431.55	431.19	412.00	V 2
	VZ 1	275.88	280.12	284.10	294.84	297.72	291.61	287.18	271.23	267.29	VZ 1
	VZ 2	409.01	412.62	422.36	414.49	410.71	406.32	393.05	388.54	364.52	VZ 2
	V-THETA 1	65.21	65.19	67.68	65.90	64.37	59.33	59.99	59.63	62.69	V-THETA 1
	V-THETA 2	159.47	153.45	152.89	150.04	160.95	172.47	172.54	181.18	186.53	V-THETA 2
	M 1	0.2556	0.2593	0.2634	0.2726	0.2749	0.2685	0.2646	0.2503	0.2474	M 1
	M 2	0.3994	0.4006	0.4091	0.4014	0.4023	0.4033	0.3924	0.3921	0.3742	M 2
	TURN	-8.00	-7.30	-6.50	-7.28	-9.15	-11.41	-11.77	-12.45	-13.72	TURN
	PT1	12.160	12.170	12.190	12.240	12.260	12.240	12.230	12.170	12.160	PT1
	PT2	12.160	12.170	12.230	12.190	12.210	12.230	12.170	12.170	12.060	PT2
	PS1	11.620	11.614	11.616	11.624	11.633	11.642	11.649	11.651	11.653	PS1
	PS2	10.894	10.896	10.899	10.909	10.922	10.934	10.944	10.946	10.949	PS2
	TT1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	TT1
	TT2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	TT2
ROTOR F	PCT SPAN	94.99	90.01	85.01	70.01	49.99	30.01	14.99	10.01	5.01	PCT SPAN
	DIA	16.719	16.937	17.156	17.812	18.688	19.562	20.219	20.437	20.656	DIA
STATION 2	BETA 2	21.300	20.400	19.900	19.900	21.400	23.000	23.700	25.000	27.100	BETA 2
STATION 3	BETA 3	72.140	69.030	63.950	56.320	54.870	57.230	62.520	66.940	73.160	BETA 3
	BETA (PR) 2	54.107	54.607	54.542	56.044	58.666	60.302	62.311	62.649	64.289	BETA (PR) 2
	BETA (PR) 3	-35.574	-28.528	-19.040	-5.552	2.187	6.005	8.622	9.008	10.404	BETA (PR) 3
	V 2	439.00	440.25	449.26	441.13	442.01	443.06	431.55	431.19	412.00	V 2
	V 3	989.60	993.34	995.39	991.73	964.49	944.83	916.12	902.22	886.22	V 3
	VZ 2	409.01	412.62	422.36	414.49	410.71	406.32	393.05	388.54	364.52	VZ 2
	VZ 3	303.28	355.22	437.02	549.85	554.72	510.92	422.28	353.08	256.59	VZ 3
	V-THETA 2	159.47	153.45	152.89	150.04	160.95	172.47	172.54	181.18	186.53	V-THETA 2
	V-THETA 3	941.20	926.82	894.04	825.09	788.40	793.71	811.88	829.38	847.73	V-THETA 3
	V(PR) 2	697.6	712.4	728.1	758.0	790.3	821.0	847.0	846.9	841.5	V(PR) 2
	V(PR) 3	374.8	406.2	462.9	552.8	556.0	515.4	429.2	359.5	262.6	V(PR) 3
	VTHETA PR2	-565.2	-580.8	-593.1	-634.5	-674.6	-712.4	-749.0	-751.1	-757.0	VTHETA PR2
	VTHETA PR3	216.9	193.1	150.8	53.5	-21.2	-53.7	-64.0	-56.0	-47.1	VTHETA PR3
	U 2	724.64	734.21	745.95	784.50	835.54	884.88	921.53	932.32	943.58	U 2
	U 3	724.29	733.73	743.22	771.64	809.59	847.45	875.91	885.36	894.84	U 3
	M 2	0.3994	0.4006	0.4091	0.4014	0.4023	0.4033	0.3924	0.3921	0.3742	M 2
	M 3	0.8745	0.8797	0.8837	0.8844	0.8586	0.8364	0.8045	0.7888	0.7712	M 3
	M(PR) 2	0.6348	0.6483	0.6630	0.6898	0.7192	0.7473	0.7703	0.7702	0.7642	M(PR) 2
	M(PR) 3	0.3312	0.3597	0.4109	0.4930	0.4949	0.4563	0.3769	0.3143	0.2285	M(PR) 3
	TURN (PR)	89.467	82.988	73.553	62.370	56.422	54.207	53.581	53.528	53.780	TURN (PR)
	PT2	12.160	12.170	12.230	12.190	12.210	12.230	12.170	12.170	12.060	PT2
	PT3	19.160	19.510	19.830	20.480	20.640	20.820	20.620	20.460	20.270	PT3
	PS2	10.894	10.896	10.899	10.909	10.922	10.934	10.944	10.946	10.949	PS2
	PS3	11.643	11.790	11.932	12.314	12.754	13.165	13.467	13.571	13.678	PS3
	TT2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	TT2
	TT3	614.400	612.700	610.400	605.100	602.500	605.300	609.500	612.100	614.900	TT3
STATOR F	PCT SPAN	96.20	92.50	86.80	70.80	49.89	29.71	13.99	9.40	5.00	PCT SPAN
	DIA	16.640	16.776	16.986	17.575	18.345	19.088	19.667	19.836	19.998	DIA
STATION 3	BETA 3	72.140	69.030	63.950	56.320	54.870	57.230	62.520	66.940	73.160	BETA 3
STATION 4	BETA 4	1.300	1.400	2.400	8.200	9.700	10.500	10.700	9.800	9.100	BETA 4
	V 3	989.60	993.34	995.39	991.73	964.49	944.83	916.12	902.22	886.22	V 3
	V 4	516.02	545.37	577.07	624.47	652.24	667.89	671.92	671.61	670.93	V 4
	VZ 3	303.28	355.22	437.02	549.85	554.72	510.92	422.28	353.08	256.59	VZ 3
	VZ 4	515.88	545.19	576.54	617.97	642.61	656.17	659.52	661.04	661.66	VZ 4
	V-THETA 3	941.20	926.82	894.04	825.09	788.40	793.71	811.88	829.38	847.73	V-THETA 3
	V-THETA 4	11.71	13.32	24.16	89.05	109.84	121.61	124.62	114.18	105.98	V-THETA 4
	M 3	0.8745	0.8797	0.8837	0.8844	0.8586	0.8364	0.8045	0.7888	0.7712	M 3
	M 4	0.4325	0.4588	0.4877	0.5323	0.5587	0.5716	0.5731	0.5716	0.5696	M 4
	TURN (PR)	70.708	67.514	61.519	48.103	45.133	46.654	51.713	57.031	63.964	TURN (PR)
	PT3	19.160	19.510	19.830	20.480	20.640	20.820	20.620	20.460	20.270	PT3
	PT4	18.690	18.980	19.320	19.860	20.140	20.200	20.090	20.020	19.940	PT4
	PS3	11.643	11.790	11.932	12.314	12.754	13.165	13.467	13.571	13.678	PS3
	PS4	16.435	16.429	16.420	16.375	16.293	16.186	16.079	16.042	16.002	PS4
	TT3	614.400	612.700	610.400	605.100	602.500	605.300	609.500	612.100	614.900	TT3
	TT4	614.400	612.700	610.400	605.100	602.500	605.300	609.500	612.100	614.900	TT4

Table B-12. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Percent Equivalent Rotor Speed = 99.92 Equivalent Rotor Speed = 9928.5 Equivalent Weight Flow = 34.85 lb/sec
Circumferential Distortion
Streamline Position = 147 deg
U.S. Customary Units

INLET GUIDE VANE	PCT SPAN	95.90	91.90	87.00	70.90	49.60	29.01	13.71	9.20	4.50	PCT SPAN
	DIA	16.727	16.948	17.219	18.109	19.287	20.426	21.272	21.521	21.781	DIA
STATION 1	BETA 1	3.400	3.200	3.150	2.550	2.000	1.900	2.400	2.550	2.600	BETA 1
STATION 2	BETA 2	17.400	18.000	17.800	18.300	19.700	20.000	19.800	20.300	23.800	BETA 2
	V 1	290.94	311.28	314.42	320.92	323.68	313.74	306.82	293.62	289.86	V 1
	V 2	406.41	420.07	434.45	431.55	426.60	438.02	430.45	421.79	414.62	V 2
	VZ 1	290.42	310.80	313.95	320.60	323.48	313.57	306.55	293.32	289.56	VZ 1
	VZ 2	387.81	399.48	413.58	409.41	400.80	410.00	402.72	393.15	376.90	VZ 2
	V-THETA 1	17.25	17.38	17.28	14.28	11.30	10.40	12.85	13.06	13.15	V-THETA 1
	V-THETA 2	121.53	129.80	132.79	135.40	143.51	149.23	144.99	145.43	166.23	V-THETA 2
	M 1	0.2624	0.2810	0.2839	0.2899	0.2924	0.2833	0.2769	0.2648	0.2614	M 1
	M 2	0.3689	0.3817	0.3952	0.3924	0.3878	0.3985	0.3914	0.3833	0.3766	M 2
	TURN	-14.00	-14.80	-14.65	-15.74	-17.66	-18.02	-17.28	-17.62	-21.04	TURN
	PT1	12.090	12.180	12.200	12.250	12.290	12.270	12.260	12.210	12.200	PT1
	PT2	12.070	12.150	12.240	12.230	12.210	12.290	12.250	12.200	12.160	PT2
	PS1	11.525	11.530	11.536	11.556	11.582	11.605	11.624	11.629	11.634	PS1
	PS2	10.987	10.988	10.991	10.998	11.007	11.016	11.022	11.024	11.026	PS2
	TT1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	TT1
	TT2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	TT2
ROTOR F	PCT SPAN	94.99	90.01	85.01	70.01	49.99	30.01	14.99	10.01	5.01	PCT SPAN
	DIA	16.719	16.937	17.156	17.812	18.688	19.562	20.219	20.437	20.656	DIA
STATION 2	BETA 2	17.400	18.000	17.800	18.300	19.700	20.000	19.800	20.300	23.800	BETA 2
STATION 3	BETA 3	79.570	73.250	68.330	57.950	55.340	57.130	60.130	63.120	69.300	BETA 3
	BETA (PR) 2	57.258	56.538	56.000	57.759	59.922	60.868	62.588	63.452	64.133	BETA (PR) 2
	BETA (PR) 3	-54.185	-36.128	-24.378	-5.772	4.661	11.091	13.873	14.140	14.509	BETA (PR) 3
	V 2	406.41	420.07	434.45	431.55	426.60	438.02	430.45	421.79	414.62	V 2
	V 3	988.91	982.47	975.54	972.10	932.20	896.40	885.73	881.25	872.12	V 3
	VZ 2	387.81	399.48	413.58	409.41	400.80	410.00	402.72	393.15	376.90	VZ 2
	VZ 3	178.98	283.00	360.16	515.75	529.88	486.04	440.57	397.96	308.01	VZ 3
	V-THETA 2	121.53	129.80	132.79	135.40	143.51	149.23	144.99	145.43	166.23	V-THETA 2
	V-THETA 3	972.31	940.31	906.43	823.77	766.39	752.17	767.10	785.10	815.14	V-THETA 3
	V(PR) 2	717.0	724.5	739.6	767.6	800.2	843.1	875.9	880.9	865.2	V(PR) 2
	V(PR) 3	306.7	351.8	395.9	518.7	532.5	496.8	456.0	412.6	320.2	V(PR) 3
	VTHETA PR2	-603.1	-604.4	-613.2	-649.1	-692.0	-735.7	-776.5	-786.9	-777.3	VTHETA PR2
	VTHETA PR3	248.0	206.6	163.2	52.1	-43.2	-95.3	-108.8	-100.3	-79.7	VTHETA PR3
	U 2	724.64	734.21	745.95	784.50	835.54	884.88	921.53	932.32	943.58	U 2
	U 3	724.29	733.73	743.22	771.64	809.59	847.45	875.91	885.36	894.84	U 3
	M 2	0.3689	0.3817	0.3952	0.3924	0.3878	0.3985	0.3914	0.3833	0.3766	M 2
	M 3	0.8688	0.8642	0.8600	0.8628	0.8261	0.7899	0.7755	0.7693	0.7587	M 3
	M(PR) 2	0.6509	0.6583	0.6728	0.6981	0.7274	0.7670	0.7965	0.8005	0.7859	M(PR) 2
	M(PR) 3	0.2695	0.3094	0.3490	0.4604	0.4719	0.4378	0.3992	0.3602	0.2785	M(PR) 3
	TURN (PR)	111.228	92.499	80.344	63.506	55.210	49.704	48.633	49.229	49.543	TURN (PR)
	PT2	12.070	12.150	12.240	12.230	12.210	12.290	12.250	12.200	12.160	PT2
	PT3	19.160	19.320	19.470	20.160	20.090	19.950	20.080	20.100	20.040	PT3
	PS2	10.987	10.988	10.991	10.998	11.007	11.016	11.022	11.024	11.026	PS2
	PS3	11.713	11.869	12.014	12.403	12.838	13.219	13.494	13.588	13.686	PS3
	TT2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	TT2
	TT3	620.500	618.200	614.700	606.900	602.200	602.800	608.200	610.700	613.200	TT3
STATOR F	PCT SPAN	96.20	92.50	86.80	70.80	49.89	29.71	13.99	9.40	5.00	PCT SPAN
	DIA	16.640	16.776	16.986	17.575	18.345	19.088	19.667	19.836	19.998	DIA
STATION 3	BETA 3	79.570	73.250	68.330	57.950	55.340	57.130	60.130	63.120	69.300	BETA 3
STATION 4	BETA 4	2.000	1.300	-0.200	5.300	7.600	9.400	10.200	9.300	8.400	BETA 4
	V 3	988.91	982.47	975.54	972.10	932.20	896.40	885.73	881.25	872.12	V 3
	V 4	516.69	540.17	557.16	588.66	593.66	620.27	639.22	646.81	653.03	V 4
	VZ 3	178.98	283.00	360.16	515.75	529.88	486.04	440.57	397.96	308.01	VZ 3
	VZ 4	516.37	540.03	557.13	585.96	588.76	611.44	628.44	637.20	645.22	VZ 4
	V-THETA 3	972.31	940.31	906.43	823.77	766.39	752.17	767.10	785.10	815.14	V-THETA 3
	V-THETA 4	18.03	12.25	-1.95	54.36	78.48	101.22	113.07	106.63	95.28	V-THETA 4
	M 3	0.8688	0.8642	0.8600	0.8628	0.8261	0.7899	0.7755	0.7693	0.7587	M 3
	M 4	0.4309	0.4522	0.4684	0.4994	0.5060	0.5296	0.5442	0.5498	0.5542	M 4
	TURN (PR)	77.489	71.854	68.503	52.633	47.702	47.653	49.816	53.497	60.783	TURN (PR)
	PT3	19.160	19.320	19.470	20.160	20.090	19.950	20.080	20.100	20.040	PT3
	PT4	18.720	18.950	19.120	19.420	19.370	19.540	19.600	19.630	19.680	PT4
	PS3	11.713	11.869	12.014	12.403	12.838	13.219	13.494	13.588	13.686	PS3
	PS4	16.477	16.470	16.452	16.378	16.264	16.142	16.025	15.984	15.941	PS4
	TT3	620.500	618.200	614.700	606.900	602.200	602.800	608.200	610.700	613.200	TT3
	TT4	620.500	618.200	614.700	606.900	602.200	602.800	608.200	610.700	613.200	TT4

ORIGINAL PAGE IS OF POOR QUALITY

Table B-12. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Percent Equivalent Rotor Speed = 99.92 Equivalent Rotor Speed = 9928.5 Equivalent Weight Flow = 34.85 lb/sec
Circumferential Distortion
Streamline Position = 177 deg
U.S. Customary Units

INLET GUIDE VANE	PCT SPAN	95.90	91.90	87.00	70.90	49.60	29.01	13.71	9.20	4.50	PCT SPAN
	DIA	16.727	16.948	17.219	18.109	19.287	20.426	21.272	21.521	21.781	DIA
STATION 1	BETA 1	-10.500	-10.500	-10.500	-10.500	-10.500	-10.500	-10.500	-10.500	-10.500	BETA 1
STATION 2	BETA 2	12.500	13.000	14.200	13.100	15.000	15.800	13.800	19.300	17.200	BETA 2
	V 1	301.75	308.07	314.01	317.68	320.83	319.52	321.14	311.43	301.36	V 1
	V 2	398.13	415.44	422.20	422.01	426.62	432.79	432.61	427.72	410.68	V 2
	VZ 1	296.69	302.91	308.75	312.36	315.46	314.17	315.76	306.21	296.32	VZ 1
	VZ 2	388.68	404.77	409.23	410.70	411.19	414.74	417.61	401.17	389.55	VZ 2
	V-THETA 1	-54.99	-56.14	-57.22	-57.89	-58.47	-58.23	-58.52	-56.75	-54.92	V-THETA 1
	V-THETA 2	86.17	93.45	103.55	95.57	110.18	117.36	102.57	140.49	120.59	V-THETA 2
	M 1	0.2723	0.2781	0.2835	0.2869	0.2898	0.2886	0.2900	0.2811	0.2719	M 1
	M 2	0.3612	0.3774	0.3837	0.3835	0.3878	0.3936	0.3934	0.3889	0.3729	M 2
	TURN	-23.00	-23.50	-24.70	-23.59	-25.47	-26.23	-24.22	-29.68	-27.58	TURN
	PT1	12.190	12.220	12.250	12.280	12.310	12.320	12.340	12.300	12.260	PT1
	PT2	12.120	12.220	12.260	12.260	12.290	12.330	12.330	12.300	12.200	PT2
	PS1	11.578	11.581	11.585	11.598	11.613	11.628	11.640	11.643	11.646	PS1
	PS2	11.075	11.076	11.076	11.077	11.079	11.081	11.082	11.082	11.083	PS2
	TT1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	TT1
	TT2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	TT2
ROTOR F	PCT SPAN	94.99	90.01	85.01	70.01	49.99	30.01	14.99	10.01	5.01	PCT SPAN
	DIA	16.719	16.937	17.156	17.812	18.688	19.562	20.219	20.437	20.656	DIA
STATION 2	BETA 2	12.500	13.000	14.200	13.100	15.000	15.800	13.800	19.300	17.200	BETA 2
STATION 3	BETA 3	76.490	71.030	66.300	55.540	52.450	54.490	57.500	63.210	63.350	BETA 3
	BETA (RR) 2	58.668	57.720	57.502	59.199	60.452	61.615	62.982	63.132	64.670	BETA (RR) 2
	BETA (RR) 3	-43.976	-30.176	-20.709	-4.357	5.319	11.906	14.192	12.443	14.589	BETA (RR) 3
	V 2	398.13	415.44	422.20	422.01	426.62	432.79	432.61	427.72	410.68	V 2
	V 3	970.12	970.30	973.39	987.72	953.50	905.92	895.77	893.45	886.74	V 3
	VZ 2	388.68	404.77	409.23	410.70	411.19	414.74	417.61	401.17	389.55	VZ 2
	VZ 3	226.54	315.22	391.17	558.76	580.78	525.62	480.59	402.22	397.20	VZ 3
	V-THETA 2	86.17	93.45	103.55	95.57	110.18	117.36	102.57	140.49	120.59	V-THETA 2
	V-THETA 3	942.87	917.01	891.10	814.21	755.52	736.62	758.38	796.61	791.46	V-THETA 3
	V(RR) 2	747.5	757.9	761.7	802.2	834.3	873.3	920.5	888.9	911.6	V(RR) 2
	V(RR) 3	316.1	366.3	418.7	560.8	584.2	538.9	498.1	414.2	413.0	V(RR) 3
	VTHETA RR2	-638.5	-680.8	-682.4	-688.9	-725.4	-767.5	-819.0	-791.8	-823.0	VTHETA RR2
	VTHETA RR3	218.6	183.3	147.9	42.6	-54.1	-110.8	-121.5	-88.7	-103.4	VTHETA RR3
	U 2	724.64	734.21	745.95	784.50	835.54	884.88	921.53	932.32	943.58	U 2
	U 3	724.29	733.73	743.22	771.64	809.59	847.45	875.91	885.36	894.84	U 3
	M 2	0.3612	0.3774	0.3837	0.3835	0.3878	0.3936	0.3934	0.3889	0.3729	M 2
	M 3	0.8487	0.8506	0.8563	0.8762	0.8451	0.7971	0.7824	0.7784	0.7699	M 3
	M(RR) 2	0.6782	0.6885	0.6922	0.7290	0.7584	0.7942	0.8371	0.8082	0.8280	M(RR) 2
	M(RR) 3	0.2765	0.3211	0.3683	0.4975	0.5178	0.4741	0.4351	0.3608	0.3586	M(RR) 3
	TURN (RR)	102.417	87.743	78.181	63.532	55.084	49.640	48.710	50.596	50.004	TURN (RR)
	PT2	12.120	12.220	12.260	12.260	12.290	12.330	12.330	12.300	12.200	PT2
	PT3	19.030	19.310	19.650	20.700	20.720	20.310	20.410	20.470	20.450	PT3
	PS2	11.075	11.076	11.076	11.077	11.079	11.081	11.082	11.082	11.083	PS2
	PS3	11.882	12.032	12.172	12.556	12.985	13.362	13.623	13.717	13.816	PS3
	TT2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	TT2
	TT3	622.100	619.800	616.600	610.000	605.400	605.800	612.200	614.700	617.400	TT3
STATOR F	PCT SPAN	96.20	92.50	86.80	70.80	49.89	29.71	13.99	9.40	5.00	PCT SPAN
	DIA	16.640	16.776	16.986	17.575	18.345	19.088	19.667	19.836	19.998	DIA
STATION 3	BETA 3	76.490	71.030	66.300	55.540	52.450	54.490	57.500	63.210	63.350	BETA 3
STATION 4	BETA 4	-2.500	-4.700	-6.400	0.600	5.500	7.800	7.900	7.400	7.300	BETA 4
	V 3	970.12	970.30	973.39	987.72	953.50	905.92	895.77	893.45	886.74	V 3
	V 4	531.87	550.58	576.46	623.79	639.39	650.07	677.72	684.97	689.68	V 4
	VZ 3	226.54	315.22	391.17	558.76	580.78	525.62	480.59	402.22	397.20	VZ 3
	VZ 4	531.36	548.71	572.84	623.62	636.13	643.52	670.55	678.47	683.24	VZ 4
	V-THETA 3	942.87	917.01	891.10	814.21	755.52	736.62	758.38	796.61	791.46	V-THETA 3
	V-THETA 4	-23.20	-45.11	-64.25	6.53	61.25	88.15	93.05	88.12	87.52	V-THETA 4
	M 3	0.8487	0.8506	0.8563	0.8762	0.8451	0.7971	0.7824	0.7784	0.7699	M 3
	M 4	0.4435	0.4606	0.4846	0.5295	0.5457	0.5551	0.5771	0.5824	0.5853	M 4
	TURN (RR)	78.887	75.623	72.671	58.921	46.910	46.608	49.477	55.685	55.905	TURN (RR)
	PT3	19.030	19.310	19.650	20.700	20.720	20.310	20.410	20.470	20.450	PT3
	PT4	18.700	18.890	19.160	19.660	19.730	19.690	19.840	19.860	19.840	PT4
	PS3	11.882	12.032	12.172	12.556	12.985	13.362	13.623	13.717	13.816	PS3
	PS4	16.338	16.333	16.317	16.243	16.114	15.971	15.832	15.784	15.733	PS4
	TT3	622.100	619.800	616.600	610.000	605.400	605.800	612.200	614.700	617.400	TT3
	TT4	622.100	619.800	616.600	610.000	605.400	605.800	612.200	614.700	617.400	TT4

Table B-12. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Percent Equivalent Rotor Speed = 99.92 Equivalent Rotor Speed = 9928.5 Equivalent Weight Flow = 34.85 lb/sec
Circumferential Distortion
Streamline Position = 207 deg
U.S. Customary Units

INLET GUIDE VANE	PCT SPAN	95.90	91.90	87.00	70.90	49.60	29.01	13.71	9.20	4.50	PCT SPAN
	DIA	16.727	16.948	17.219	18.109	19.287	20.426	21.272	21.521	21.781	DIA
STATION 1	BETA 1	-16.000	-15.200	-14.100	-11.500	-10.800	-10.800	-10.800	-11.400	-12.400	BETA 1
STATION 2	BETA 2	6.500	6.500	6.500	7.000	7.600	8.600	8.800	8.700	10.600	BETA 2
	V 1	285.81	287.52	296.08	304.21	301.86	304.45	321.44	316.08	303.71	V 1
	V 2	346.86	354.85	381.76	381.15	385.68	397.47	402.15	396.70	366.87	V 2
	VZ 1	274.74	277.47	287.15	298.10	296.51	299.05	315.75	309.85	296.62	VZ 1
	VZ 2	344.63	352.54	379.23	378.00	381.41	391.30	394.95	389.46	357.92	VZ 2
	V-THETA 1	-78.78	-75.39	-72.13	-60.65	-56.56	-57.05	-60.23	-62.48	-65.22	V-THETA 1
	V-THETA 2	39.27	40.17	43.21	46.41	50.89	59.18	61.14	59.60	66.98	V-THETA 2
	M 1	0.2577	0.2593	0.2671	0.2745	0.2724	0.2747	0.2903	0.2854	0.2741	M 1
	M 2	0.3137	0.3211	0.3460	0.3454	0.3496	0.3606	0.3650	0.3599	0.3322	M 2
	TURN	-22.50	-21.70	-20.60	-18.49	-18.38	-19.36	-19.55	-20.04	-22.92	TURN
	PT1	12.210	12.220	12.260	12.310	12.320	12.350	12.440	12.420	12.370	PT1
	PT2	12.100	12.140	12.280	12.280	12.310	12.380	12.410	12.380	12.220	PT2
	PS1	11.659	11.662	11.667	11.682	11.701	11.719	11.733	11.737	11.741	PS1
	PS2	11.302	11.303	11.304	11.307	11.312	11.316	11.319	11.320	11.321	PS2
	TT1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	TT1
	TT2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	TT2
ROTOR F	PCT SPAN	94.99	90.01	85.01	70.01	49.99	30.01	14.99	10.01	5.01	PCT SPAN
	DIA	16.719	16.937	17.156	17.812	18.688	19.562	20.219	20.437	20.656	DIA
STATION 2	BETA 2	6.500	6.500	6.500	7.000	7.600	8.600	8.800	8.700	10.600	BETA 2
STATION 3	BETA 3	67.670	64.400	60.550	51.580	48.560	49.840	53.710	55.230	57.990	BETA 3
	BETA (PR) 2	63.305	63.072	61.646	62.882	64.076	64.644	65.343	65.951	67.790	BETA (PR) 2
	BETA (PR) 3	-23.891	-17.536	-11.494	-0.769	8.284	14.026	15.703	16.302	16.815	BETA (PR) 3
	V 2	346.86	354.85	381.76	381.15	385.68	397.47	402.15	396.70	366.87	V 2
	V 3	958.24	959.84	964.52	995.76	957.60	917.05	902.34	897.59	889.30	V 3
	VZ 2	344.63	352.54	379.23	378.00	381.41	391.30	394.95	389.46	357.92	VZ 2
	VZ 3	363.66	414.27	474.07	618.62	633.34	590.63	533.12	510.92	470.50	VZ 3
	V-THETA 2	39.27	40.17	43.21	46.41	50.89	59.18	61.14	59.60	66.98	V-THETA 2
	V-THETA 3	885.37	864.64	839.62	779.94	717.37	699.91	726.03	735.93	752.66	V-THETA 3
	V(PR) 2	767.1	778.5	798.6	829.4	872.8	914.5	947.8	956.8	947.9	V(PR) 2
	V(PR) 3	400.4	436.9	488.4	619.1	641.0	610.6	556.4	535.2	494.5	V(PR) 3
	VTHETA PR2	-685.4	-694.0	-702.7	-738.1	-788.6	-825.7	-860.4	-872.7	-876.6	VTHETA PR2
	VTHETA PR3	161.1	130.9	96.4	8.3	-92.2	-147.5	-149.9	-149.4	-142.2	VTHETA PR3
	U 2	724.64	734.21	745.95	784.50	835.54	884.88	921.53	932.32	943.58	U 2
	U 3	724.29	733.73	743.22	771.64	809.59	847.45	875.91	885.36	894.84	U 3
	M 2	0.3137	0.3211	0.3460	0.3454	0.3496	0.3606	0.3650	0.3599	0.3322	M 2
	M 3	0.8374	0.8403	0.8467	0.8822	0.8469	0.8061	0.7867	0.7803	0.7703	M 3
	M(PR) 2	0.6939	0.7044	0.7238	0.7517	0.7913	0.8297	0.8601	0.8680	0.8584	M(PR) 2
	M(PR) 3	0.3499	0.3825	0.4252	0.5485	0.5669	0.5367	0.4851	0.4652	0.4284	M(PR) 3
	TURN (PR)	87.029	80.507	73.121	63.631	55.752	50.563	49.577	49.588	50.925	TURN (PR)
	PT2	12.100	12.140	12.280	12.280	12.310	12.380	12.410	12.380	12.220	PT2
	PT3	19.100	19.370	19.700	21.030	20.900	20.570	20.550	20.550	20.480	PT3
	PS2	11.302	11.303	11.304	11.307	11.312	11.316	11.319	11.320	11.321	PS2
	PS3	12.065	12.199	12.325	12.675	13.074	13.413	13.659	13.745	13.831	PS3
	TT2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	TT2
	TT3	621.300	619.600	617.400	612.700	608.400	608.600	615.200	617.700	620.400	TT3
STATOR F	PCT SPAN	98.20	92.50	86.80	70.80	49.89	29.71	13.99	9.40	5.00	PCT SPAN
	DIA	16.640	16.776	16.986	17.575	18.345	19.088	19.667	19.836	19.998	DIA
STATION 3	BETA 3	67.670	64.400	60.550	51.580	48.560	49.840	53.710	55.230	57.990	BETA 3
STATION 4	BETA 4	-1.300	-2.700	-7.200	-5.400	2.200	5.300	6.800	6.600	5.400	BETA 4
	V 3	958.24	959.84	964.52	995.76	957.60	917.05	902.34	897.59	889.30	V 3
	V 4	535.05	555.58	582.87	628.24	645.39	651.40	675.97	685.40	689.47	V 4
	VZ 3	363.66	414.27	474.07	618.62	633.34	590.63	533.12	510.92	470.50	VZ 3
	VZ 4	534.91	554.95	578.24	625.33	644.59	648.07	670.47	680.06	685.55	VZ 4
	V-THETA 3	885.37	864.64	839.62	779.94	717.37	699.91	726.03	735.93	752.66	V-THETA 3
	V-THETA 4	-12.14	-26.17	-73.05	-59.11	24.76	60.12	79.95	78.69	64.80	V-THETA 4
	M 3	0.8374	0.8403	0.8467	0.8822	0.8469	0.8061	0.7867	0.7803	0.7703	M 3
	M 4	0.4465	0.4651	0.4899	0.5322	0.5496	0.5550	0.5740	0.5813	0.5836	M 4
	TURN (R)	68.811	66.965	67.716	56.959	46.317	44.453	46.779	48.482	52.424	TURN (PR)
	PT3	19.100	19.370	19.700	21.030	20.900	20.570	20.550	20.550	20.480	PT3
	PT4	18.810	19.020	19.310	19.800	19.900	19.800	19.910	19.960	19.930	PT4
	PS3	12.065	12.199	12.325	12.675	13.074	13.413	13.659	13.745	13.831	PS3
	PS4	16.404	16.406	16.388	16.327	16.206	16.062	15.925	15.877	15.825	PS4
	TT3	621.300	619.600	617.400	612.700	608.400	608.600	615.200	617.700	620.400	TT3
	TT4	621.300	619.600	617.400	612.700	608.400	608.600	615.200	617.700	620.400	TT4

Table B-12. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Percent Equivalent Rotor Speed = 99.92 Equivalent Rotor Speed = 9928.5 Equivalent Weight Flow = 34.85 lb/sec
Circumferential Distortion
Streamline Position = 237 deg
U.S. Customary Units

INLET GUIDE VANE	PCT SPAN	95.90	91.90	87.00	70.90	49.60	29.01	13.71	9.20	4.50	PCT SPAN
	DIA	16.727	16.948	17.219	18.109	19.287	20.426	21.272	21.521	21.781	DIA
STATION 1	BETA 1	-23.500	-22.000	-20.400	-19.000	-18.400	-17.250	-16.000	-16.500	-17.600	BETA 1
STATION 2	BETA 2	6.100	6.100	5.800	5.600	6.500	7.500	7.900	7.700	8.100	BETA 2
	V 1	262.30	269.49	273.35	258.49	271.94	274.83	281.26	269.97	241.06	V 1
	V 2	286.98	313.47	331.29	334.09	341.45	352.63	353.27	349.50	315.75	V 2
	VZ 1	240.55	249.87	256.21	244.41	258.03	262.47	270.37	258.86	229.78	VZ 1
	VZ 2	285.35	311.67	329.54	332.22	338.48	348.10	347.74	343.97	310.23	VZ 2
	V-THETA 1	-104.59	-100.95	-95.28	-84.16	-85.84	-81.50	-77.53	-76.68	-72.89	V-THETA 1
	V-THETA 2	30.50	33.31	33.47	32.57	38.56	45.43	48.25	46.51	44.15	V-THETA 2
	M 1	0.2362	0.2428	0.2463	0.2328	0.2450	0.2477	0.2535	0.2432	0.2169	M 1
	M 2	0.2588	0.2830	0.2994	0.3020	0.3087	0.3190	0.3196	0.3162	0.2851	M 2
	TURN	-29.60	-28.10	-26.20	-24.60	-24.88	-24.72	-23.85	-24.15	-25.64	TURN
	PT1	12.360	12.390	12.410	12.370	12.440	12.470	12.510	12.470	12.370	PT1
	PT2	12.200	12.310	12.390	12.400	12.430	12.480	12.480	12.460	12.300	PT2
	PS1	11.889	11.892	11.897	11.912	11.931	11.949	11.963	11.967	11.971	PS1
	PS2	11.645	11.644	11.643	11.640	11.635	11.630	11.627	11.626	11.625	PS2
	TT1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	TT1
	TT2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	TT2
ROTOR F	PCT SPAN	94.99	90.01	85.01	70.01	49.99	30.01	14.99	10.01	5.01	PCT SPAN
	DIA	16.719	16.937	17.156	17.812	18.688	19.562	20.219	20.437	20.656	DIA
STATION 2	BETA 2	6.100	6.100	5.800	5.600	6.500	7.500	7.900	7.700	8.100	BETA 2
STATION 3	BETA 3	66.270	62.350	58.780	50.670	46.090	45.890	49.580	50.750	51.970	BETA 3
	BETA (PR) 2	67.653	66.027	65.178	66.163	66.989	67.468	68.288	68.778	70.970	BETA (PR) 2
	BETA (PR) 3	-20.744	-14.067	-8.808	1.810	8.925	13.737	14.710	15.148	15.760	BETA (PR) 3
	V 2	286.98	313.47	331.29	334.09	341.45	352.63	353.27	349.50	315.75	V 2
	V 3	950.44	954.74	959.50	972.68	976.91	955.68	942.29	938.40	933.01	V 3
	VZ 2	285.35	311.67	329.54	332.22	338.48	348.10	347.74	343.97	310.23	VZ 2
	VZ 3	381.99	442.49	497.15	616.30	677.01	664.14	609.67	592.35	573.34	VZ 3
	V-THETA 2	30.50	33.31	33.47	32.57	38.56	45.83	48.25	46.51	44.15	V-THETA 2
	V-THETA 3	868.96	844.60	820.25	752.16	703.27	685.10	715.85	725.00	733.04	V-THETA 3
	V(PR) 2	750.5	767.1	785.0	822.2	866.2	909.0	940.8	951.1	952.2	V(PR) 2
	V(PR) 3	411.3	458.8	503.8	617.0	686.3	685.8	633.3	617.0	599.4	V(PR) 3
	VTHETA PR2	-694.1	-700.9	-712.5	-751.9	-797.0	-839.1	-873.3	-885.8	-899.4	VTHETA PR2
	VTHETA PR3	144.7	110.9	77.0	-19.5	-106.3	-162.4	-160.1	-160.4	-151.8	VTHETA PR3
	U 2	724.64	734.21	745.95	784.50	835.54	884.88	921.53	932.32	94 .58	U 2
	U 3	724.29	733.73	743.22	771.64	809.59	847.45	875.91	885.36	89 .84	U 3
	M 2	0.2588	0.2830	0.2994	0.3020	0.3087	0.3190	0.3196	0.3162	0.2851	M 2
	M 3	0.8308	0.8365	0.8429	0.8600	0.8666	0.8448	0.8259	0.8201	0.8128	M 3
	M(PR) 2	0.6767	0.6925	0.7094	0.7431	0.7832	0.8224	0.8512	0.8604	0.8598	M(PR) 2
	M(PR) 3	0.3595	0.4020	0.4426	0.5456	0.6088	0.6063	0.5551	0.5392	0.5222	M(PR) 3
	TURN (PR)	88.247	80.010	73.970	64.337	58.029	53.684	53.523	53.578	55.173	TURN (PR)
	PT2	12.200	12.310	12.390	12.400	12.430	12.480	12.480	12.460	12.300	PT2
	PT3	18.400	18.700	19.010	19.880	20.630	20.700	20.680	20.690	20.670	PT3
	PS2	11.645	11.644	11.643	11.640	11.635	11.630	11.627	11.626	11.625	PS2
	PS3	11.702	11.823	11.940	12.266	12.642	12.976	13.218	13.303	13.388	PS3
	TT2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	TT2
	TT3	619.800	617.900	615.800	611.000	608.300	608.500	615.600	618.200	620.800	TT3
STATOR F	PCT SPAN	96.20	92.50	86.80	70.80	49.89	29.71	13.99	9.40	5.00	PCT SPAN
	DIA	16.640	16.776	16.986	17.575	18.345	19.088	19.667	19.836	19.998	DIA
STATION 3	BETA 3	66.270	62.350	58.780	50.670	46.090	45.890	49.580	50.750	51.970	BETA 3
STATION 4	BETA 4	5.600	4.400	4.300	-6.500	1.700	4.800	6.600	6.500	6.500	BETA 4
	V 3	950.44	954.74	959.50	972.68	976.91	955.68	942.29	938.40	933.01	V 3
	V 4	478.90	507.12	541.29	609.36	646.76	657.50	701.92	715.26	725.97	V 4
	VZ 3	381.99	442.49	497.15	616.30	677.01	664.14	609.67	592.35	573.34	VZ 3
	VZ 4	476.61	505.62	539.74	605.32	646.15	654.64	696.50	709.82	720.40	VZ 4
	V-THETA 3	868.96	844.60	820.25	752.16	703.27	685.10	715.85	725.00	733.04	V-THETA 3
	V-THETA 4	46.73	38.90	40.58	-68.97	19.18	54.97	80.59	80.87	82.08	V-THETA 4
	M 3	0.8308	0.8365	0.8429	0.8600	0.8666	0.8448	0.8259	0.8201	0.8128	M 3
	M 4	0.3986	0.4236	0.4540	0.5161	0.5509	0.5606	0.5973	0.6081	0.6166	M 4
	TURN (PR)	60.503	57.808	54.446	57.149	44.347	41.001	42.844	44.095	45.292	TURN (PR)
	PT3	18.400	18.700	19.010	19.880	20.630	20.700	20.680	20.690	20.670	PT3
	PT4	18.100	18.350	18.670	19.360	19.680	19.620	19.980	20.080	20.140	PT4
	PS3	11.702	11.823	11.940	12.266	12.642	12.976	13.218	13.303	13.388	PS3
	PS4	16.223	16.220	16.208	16.144	16.012	15.851	15.697	15.642	15.584	PS4
	TT3	619.800	617.900	615.800	611.000	608.300	608.500	615.600	618.200	620.800	TT3
	TT4	619.800	617.900	615.800	611.000	608.300	608.500	615.600	618.200	620.800	TT4

Table B-12. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Percent Equivalent Rotor Speed = 99.92 Equivalent Rotor Speed = 9928.5 Equivalent Weight Flow = 34.85 lb/sec
Circumferential Distortion
Streamline Position = 267 deg
U.S. Customary Units

INLET GUIDE VANE	PCT SPAN	95.90	91.90	87.00	70.90	49.60	29.01	13.71	9.20	4.50	PCT SPAN
	DIA	16.727	16.948	17.219	18.109	19.287	20.426	21.272	21.521	21.781	DIA
STATION 1	BETA 1	-27.300	-26.600	-25.800	-25.000	-23.200	-22.750	-23.700	-24.900	-26.200	BETA 1
STATION 2	BETA 2	2.000	2.200	2.400	2.900	4.300	4.200	4.600	4.600	4.500	BETA 2
	V 1	315.47	323.03	317.71	307.10	285.75	314.60	331.80	296.48	290.89	V 1
	V 2	265.32	278.82	301.11	295.07	316.93	329.12	368.15	357.92	349.06	V 2
	VZ 1	280.33	288.84	286.04	278.32	262.64	290.13	303.82	268.92	261.00	VZ 1
	VZ 2	265.15	278.60	300.79	294.45	315.30	326.80	364.65	354.29	345.31	VZ 2
	V-THETA 1	-144.69	-144.64	-138.28	-129.79	-112.57	-121.66	-133.37	-124.83	-128.43	V-THETA 1
	V-THETA 2	9.26	10.70	12.61	14.92	23.71	24.00	29.34	28.51	27.18	V-THETA 2
	M 1	0.2848	0.2918	0.2869	0.2772	0.2576	0.2841	0.2999	0.2674	0.2623	M 1
	M 2	0.2390	0.2513	0.2717	0.2662	0.2862	0.2974	0.3334	0.3239	0.3157	M 2
	TURN	-29.30	-28.80	-28.20	-27.90	-27.49	-26.93	-28.27	-29.47	-30.67	TURN
	PT1	12.960	13.000	12.980	12.950	12.880	13.030	13.130	12.970	12.950	PT1
	PT2	12.700	12.750	12.840	12.800	12.880	12.920	13.110	13.050	13.000	PT2
	PS1	12.250	12.254	12.259	12.277	12.299	12.320	12.336	12.341	12.345	PS1
	PS2	12.205	12.202	12.198	12.185	12.168	12.151	12.139	12.135	12.132	PS2
	TT1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	TT1
	TT2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	TT2
ROTOR F	PCT SPAN	94.99	90.01	85.01	70.01	49.99	30.01	14.99	10.01	5.01	PCT SPAN
	DIA	16.719	16.937	17.156	17.812	18.688	19.562	20.219	20.437	20.656	DIA
STATION 2	BETA 2	2.000	2.200	2.400	2.900	4.300	4.200	4.600	4.600	4.500	BETA 2
STATION 3	BETA 3	58.890	55.710	52.530	45.810	43.770	45.320	48.420	49.250	50.920	BETA 3
	BETA (PR) 2	69.663	68.940	67.698	69.063	68.775	69.213	67.770	68.595	69.353	BETA (PR) 2
	BETA (PR) 3	-15.831	-10.974	-6.595	1.828	7.837	11.310	11.633	11.821	11.558	BETA (PR) 3
	V 2	265.32	278.82	301.11	295.07	316.93	329.12	368.15	357.92	349.06	V 2
	V 3	1022.77	1025.37	1028.01	1044.12	1024.11	996.64	992.32	992.59	991.22	V 3
	VZ 2	265.15	278.60	300.79	294.45	315.30	326.80	364.65	354.29	345.31	VZ 2
	VZ 3	527.33	576.57	625.07	727.55	738.94	699.66	657.10	646.32	623.20	VZ 3
	V-THETA 2	9.26	10.70	12.61	14.92	23.71	24.00	29.34	28.51	27.18	V-THETA 2
	V-THETA 3	873.82	845.53	815.49	748.41	707.87	707.52	740.63	750.09	767.40	V-THETA 3
	V (PR) 2	762.9	775.3	792.7	824.1	871.2	921.3	964.7	971.7	980.3	V (PR) 2
	V (PR) 3	552.1	590.7	630.1	728.4	747.0	715.7	674.1	664.0	640.2	V (PR) 3
	VTHETA PR2	-715.4	-723.5	-733.3	-769.6	-811.8	-860.9	-892.2	-903.8	-916.4	VTHETA PR2
	VTHETA PR3	149.5	111.8	72.3	-23.2	-101.7	-139.9	-135.3	-135.3	-127.4	VTHETA PR3
	U 2	724.64	734.21	745.95	784.50	835.54	884.88	921.53	932.32	943.58	U 2
	U 3	724.29	733.73	743.22	771.64	809.59	847.45	875.91	885.36	894.84	U 3
	M 2	0.2390	0.2513	0.2717	0.2662	0.2862	0.2974	0.3334	0.3239	0.3157	M 2
	M 3	0.9012	0.9058	0.9110	0.9324	0.9132	0.8815	0.8710	0.8691	0.8649	M 3
	M (PR) 2	0.6872	0.6988	0.7152	0.7433	0.7867	0.8325	0.8736	0.8794	0.8867	M (PR) 2
	M (PR) 3	0.4865	0.5219	0.5583	0.6505	0.6662	0.6331	0.5917	0.5814	0.5586	M (PR) 3
	TURN (PR)	85.375	79.848	74.281	67.220	60.904	57.854	56.065	56.704	57.723	TURN (PR)
	PT2	12.700	12.750	12.840	12.800	12.880	12.920	13.110	13.050	13.000	PT2
	PT3	19.310	19.620	19.930	20.960	21.150	20.980	21.150	21.250	21.300	PT3
	PS2	12.205	12.202	12.198	12.185	12.168	12.151	12.139	12.135	12.132	PS2
	PS3	11.402	11.527	11.644	11.960	12.326	12.654	12.900	12.987	13.076	PS3
	TT2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	TT2
	TT3	623.000	620.700	617.900	612.600	610.600	614.600	622.100	624.800	628.400	TT3
STATOR F	PCT SPAN	96.20	92.50	86.80	70.80	49.89	29.71	13.99	9.40	5.00	PCT SPAN
	DIA	16.640	16.776	16.986	17.575	18.345	19.088	19.667	19.836	19.998	DIA
STATION 3	BETA 3	58.890	55.710	52.530	45.810	43.770	45.320	48.420	49.250	50.920	BETA 3
STATION 4	BETA 4	3.600	1.700	3.700	9.500	9.100	8.100	7.000	6.900	6.100	BETA 4
	V 3	1022.77	1025.37	1028.01	1044.12	1024.11	996.64	992.32	992.59	991.22	V 3
	V 4	558.68	576.96	602.73	645.94	663.63	677.28	721.74	728.84	734.71	V 4
	VZ 3	527.33	576.57	625.07	727.55	738.94	699.66	657.10	646.32	623.20	VZ 3
	VZ 4	557.58	576.70	601.44	636.96	654.96	669.97	715.57	722.71	729.64	VZ 4
	V-THETA 3	873.82	845.53	815.49	748.41	707.87	707.52	740.63	750.09	767.40	V-THETA 3
	V-THETA 4	35.08	17.12	38.89	106.59	104.91	95.35	87.86	87.46	77.98	V-THETA 4
	M 3	0.9012	0.9058	0.9110	0.9324	0.9132	0.8815	0.8710	0.8691	0.8649	M 3
	M 4	0.4664	0.4833	0.5072	0.5481	0.5651	0.5755	0.6120	0.6170	0.6205	M 4
	TURN (PR)	55.090	53.849	48.793	36.292	34.630	37.134	41.284	42.194	44.640	TURN (PR)
	PT3	19.310	19.620	19.930	20.960	21.150	20.980	21.150	21.250	21.300	PT3
	PT4	16.240	16.140	19.430	19.920	20.030	20.010	20.390	20.400	20.380	PT4
	PS3	11.402	11.527	11.644	11.960	12.326	12.654	12.900	12.987	13.076	PS3
	PS4	16.317	16.313	16.301	16.240	16.128	15.987	15.835	15.779	15.720	PS4
	TT3	623.000	620.700	617.900	612.600	610.600	614.600	622.100	624.800	628.400	TT3
	TT4	623.000	620.700	617.900	612.600	610.600	614.600	622.100	624.800	628.400	TT4

Table B-12. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Percent Equivalent Rotor Speed = 99.92 Equivalent Rotor Speed = 9928.5 Equivalent Weight Flow = 34.85 lb/sec
Circumferential Distortion
Streamline Position = 297 deg
U.S. Customary Units

INLET GUIDE VANE	PCT SPAN	95.90	91.90	87.00	70.90	49.60	29.01	13.71	9.20	4.50	PCT SPAN
	DIA	16.727	16.948	17.219	18.109	19.287	20.426	21.272	21.521	21.781	DIA
STATION 1	BETA 1	-17.200	-15.800	-13.700	-12.500	-11.500	-11.800	-11.100	-11.900	-12.900	BETA 1
STATION 2	BETA 2	9.400	10.000	8.600	9.300	10.200	10.400	10.000	11.600	14.300	BETA 2
	V 1	403.55	416.01	427.68	439.86	436.76	431.16	418.28	407.92	392.89	V 1
	V 2	406.53	421.15	430.70	459.15	460.72	457.02	451.21	448.05	437.78	V 2
	VZ 1	385.50	400.29	415.52	429.43	427.99	422.04	410.45	399.15	382.97	VZ 1
	VZ 2	401.06	414.72	425.78	452.75	452.42	447.59	441.62	435.95	421.13	VZ 2
	V-THETA 1	-119.33	-113.27	-101.29	-95.20	-87.08	-88.17	-80.53	-84.11	-87.71	V-THETA 1
	V-THETA 2	66.40	73.13	64.39	74.14	81.40	82.15	77.87	89.49	107.35	V-THETA 2
	M 1	0.3663	0.3779	0.3888	0.4002	0.3973	0.3921	0.3800	0.3703	0.3563	M 1
	M 2	0.3691	0.3827	0.3916	0.4184	0.4199	0.4164	0.4109	0.4079	0.3983	M 2
	TURN	-26.60	-25.80	-22.30	-21.79	-21.68	-22.16	-21.04	-23.42	-27.09	TURN
	PT1	13.920	14.010	14.100	14.220	14.240	14.240	14.180	14.120	14.030	PT1
	PT2	13.790	13.890	13.960	14.180	14.210	14.200	14.170	14.150	14.080	PT2
	PS1	12.688	12.695	12.704	12.734	12.772	12.808	12.835	12.844	12.851	PS1
	PS2	12.552	12.555	12.559	12.571	12.587	12.603	12.615	12.618	12.622	PS2
	TT1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	TT1
	TT2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	TT2
ROTOR F	PCT SPAN	98.99	90.01	85.01	70.01	49.99	30.01	14.99	10.01	5.01	PCT SPAN
	DIA	16.719	16.937	17.156	17.812	18.688	19.562	20.219	20.437	20.656	DIA
STATION 2	BETA 2	9.400	10.000	8.600	9.300	10.200	10.400	10.000	11.600	14.300	BETA 2
STATION 3	BETA 3	55.060	51.810	48.330	43.420	42.210	43.360	46.930	49.970	53.670	BETA 3
	BETA(PR) 2	58.646	57.899	58.006	57.489	59.040	60.857	62.370	62.650	63.270	BETA(PR) 2
	BETA(PR) 3	-6.326	-2.876	0.647	6.304	12.095	16.978	17.669	17.102	16.802	BETA(PR) 3
	V 2	406.53	421.15	430.70	459.15	460.72	457.02	451.21	448.05	437.78	V 2
	V 3	960.22	974.21	985.65	1005.66	975.57	934.35	926.09	921.01	911.07	V 3
	VZ 2	401.06	414.72	425.78	452.75	452.42	447.59	441.62	435.95	421.13	VZ 2
	VZ 3	548.51	600.93	654.91	730.18	721.98	678.15	630.93	590.96	538.48	VZ 3
	V-THETA 2	66.40	73.13	64.39	74.14	81.40	82.15	77.87	89.49	107.35	V-THETA 2
	V-THETA 3	785.10	763.92	735.83	690.98	654.88	640.40	674.93	703.53	732.24	V-THETA 3
	V(PR) 2	770.8	780.4	803.7	842.6	880.0	920.1	953.6	950.3	937.8	V(PR) 2
	V(PR) 3	556.2	605.3	655.8	735.1	739.5	711.2	665.2	621.6	566.0	V(PR) 3
	VTHETA PR2	-658.2	-661.1	-681.6	-710.4	-754.1	-802.7	-843.7	-842.8	-836.2	VTHETA PR2
	VTHETA PR3	60.8	30.2	-7.4	-80.7	-154.7	-207.0	-201.0	-181.8	-162.6	VTHETA PR3
	U 2	724.64	734.21	745.95	784.50	835.54	884.88	921.53	932.32	943.58	U 2
	U 3	724.29	733.73	743.22	771.64	809.59	847.45	875.91	885.36	894.84	U 3
	M 2	0.3691	0.3827	0.3916	0.4184	0.4199	0.4164	0.4109	0.4079	0.3983	M 2
	M 3	0.8520	0.8675	0.8810	0.9052	0.8758	0.8322	0.8182	0.8108	0.7987	M 3
	M(PR) 2	0.6997	0.7092	0.7308	0.7678	0.8020	0.8382	0.8684	0.8652	0.8532	M(PR) 2
	M(PR) 3	0.4935	0.5390	0.5862	0.6617	0.6638	0.6334	0.5877	0.5472	0.4961	M(PR) 3
	TURN(PR)	64.922	60.756	57.355	51.168	46.904	43.822	44.634	45.476	46.395	TURN(PR)
	PT2	13.790	13.890	13.960	14.180	14.210	14.200	14.170	14.150	14.080	PT2
	PT3	19.850	20.350	20.820	21.870	21.750	21.250	21.280	21.240	21.110	PT3
	PS2	12.552	12.555	12.559	12.571	12.587	12.603	12.615	12.618	12.622	PS2
	PS3	12.351	12.458	12.564	12.858	13.199	13.495	13.708	13.784	13.867	PS3
	TT2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	TT2
	TT3	605.300	603.800	601.700	597.800	595.600	597.200	604.500	607.500	610.600	TT3
STATOR F	PCT SPAN	96.20	92.50	86.80	70.80	49.89	29.71	13.99	9.40	5.00	PCT SPAN
	DIA	16.640	16.776	16.986	17.575	18.345	19.088	19.667	19.836	19.998	DIA
STATION 3	BETA 3	55.060	51.810	48.330	43.420	42.210	43.360	46.930	49.970	53.670	BETA 3
STATION 4	BETA 4	7.700	7.900	8.500	10.400	8.800	8.500	8.700	8.700	8.300	BETA 4
	V 3	960.22	974.21	985.65	1005.66	975.57	934.35	926.09	921.01	911.07	V 3
	V 4	599.77	626.29	657.18	726.57	728.83	707.17	729.13	733.61	735.21	V 4
	VZ 3	548.51	600.93	654.91	730.18	721.98	678.15	630.93	590.96	538.48	VZ 3
	VZ 4	594.31	620.34	649.93	714.49	719.90	698.82	719.95	724.33	726.61	VZ 4
	V-THETA 3	785.10	763.92	735.83	690.98	654.88	640.40	674.93	703.53	732.24	V-THETA 3
	V-THETA 4	80.36	86.08	97.13	131.13	111.45	104.44	110.17	110.84	106.00	V-THETA 4
	M 3	0.8520	0.8675	0.8810	0.9052	0.8758	0.8322	0.8182	0.8108	0.7987	M 3
	M 4	0.5101	0.5346	0.5636	0.6298	0.6332	0.6120	0.6284	0.6309	0.6306	M 4
	TURN(PR)	47.147	43.742	39.792	33.002	33.370	34.774	38.095	41.116	45.197	TURN(PR)
	PT3	19.850	20.350	20.820	21.870	21.750	21.250	21.280	21.240	21.110	PT3
	PT4	19.530	19.860	20.270	21.270	21.160	20.590	20.660	20.630	20.550	PT4
	PS3	12.351	12.458	12.564	12.858	13.199	13.495	13.708	13.784	13.867	PS3
	PS4	16.353	16.349	16.339	16.283	16.154	15.990	15.834	15.779	15.721	PS4
	TT3	605.300	603.800	601.700	597.800	595.600	597.200	604.500	607.500	610.600	TT3
	TT4	605.300	603.800	601.700	597.800	595.600	597.200	604.500	607.500	610.600	TT4

Table B-12. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Percent Equivalent Rotor Speed = 99.92 Equivalent Rotor Speed = 9928.5 Equivalent Weight Flow = 34.85 lb/sec
Circumferential Distortion
Streamline Position = 327 deg
U.S. Customary Units

INLET GUIDE VANE	PCT SPAN	95.90	91.90	87.00	70.90	49.60	29.01	13.71	9.20	4.50	PCT SPAN
	DIA	16.727	16.948	17.219	18.109	19.287	20.426	21.272	21.521	21.781	DIA
STATION 1	BETA 1	-4.300	-3.400	-2.600	-1.650	-1.550	-2.000	-2.500	-2.620	-2.750	BETA 1
STATION 2	BETA 2	14.100	13.100	13.100	12.700	13.400	13.600	14.200	14.800	15.500	BETA 2
	V 1	336.60	361.16	373.94	389.39	397.71	393.65	380.53	368.50	354.23	V 1
	V 2	416.54	433.60	449.84	471.52	477.56	473.40	470.07	461.66	452.89	V 2
	VZ 1	335.65	360.53	373.55	389.23	397.56	393.40	380.17	368.11	353.82	VZ 1
	VZ 2	403.98	422.29	438.06	459.62	463.53	458.20	452.98	443.42	433.29	VZ 2
	V-THETA 1	-25.24	-21.42	-16.96	-11.21	-10.76	-13.74	-16.60	-16.84	-17.00	V-THETA 1
	V-THETA 2	101.47	98.27	101.94	103.58	110.43	110.85	114.62	117.16	120.16	V-THETA 2
	M 1	0.3043	0.3269	0.3388	0.3531	0.3608	0.3571	0.3449	0.3337	0.3205	M 1
	M 2	0.3784	0.3944	0.4096	0.4301	0.4358	0.4319	0.4287	0.4208	0.4125	M 2
	TURN	-18.40	-16.50	-15.70	-14.34	-14.92	-15.54	-16.61	-17.32	-18.14	TURN
	PT1	13.860	14.000	14.080	14.190	14.260	14.250	14.180	14.110	14.030	PT1
	PT2	13.710	13.830	13.950	14.130	14.200	14.190	14.180	14.120	14.060	PT2
	PS1	12.998	13.001	13.005	13.018	13.033	13.048	13.060	13.063	13.066	PS1
	PS2	12.420	12.424	12.428	12.443	12.463	12.483	12.497	12.501	12.506	PS2
	TT1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	TT1
	TT2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	TT2
ROTOR F	PCT SPAN	94.99	90.01	85.01	70.01	49.99	30.01	14.99	10.01	5.01	PCT SPAN
	DIA	16.719	16.937	17.156	17.812	18.688	19.562	20.219	20.437	20.656	DIA
STATION 2	BETA 2	14.100	13.100	13.100	12.700	13.400	13.600	14.200	14.800	15.500	BETA 2
STATION 3	BETA 3	59.370	54.510	50.790	44.090	42.360	43.150	46.300	48.900	53.520	BETA 3
	BETA (PR) 2	57.046	56.414	55.776	55.981	57.411	59.376	60.691	61.455	62.246	BETA (PR) 2
	BETA (PR) 3	-9.757	-4.357	-0.599	6.890	13.944	19.644	21.869	22.710	23.544	BETA (PR) 3
	V 2	416.54	433.60	449.84	471.52	477.56	473.40	470.07	461.66	452.89	V 2
	V 3	939.08	954.87	967.97	986.38	945.19	898.97	877.80	862.83	843.72	V 3
	VZ 2	403.98	422.29	438.06	459.62	463.53	458.20	452.98	443.42	433.29	VZ 2
	VZ 3	877.47	553.23	611.59	708.21	697.84	654.72	604.99	565.78	500.44	VZ 3
	V-THETA 2	101.47	98.27	101.94	103.58	110.43	110.85	114.62	117.16	120.16	V-THETA 2
	V-THETA 3	806.39	775.88	749.61	686.06	636.32	613.75	633.09	648.57	676.79	V-THETA 3
	V(PR) 2	742.7	763.4	778.9	821.7	861.2	900.5	926.8	929.5	932.0	V(PR) 2
	V(PR) 3	488.2	558.2	612.4	713.9	720.1	697.2	654.7	616.4	549.0	V(PR) 3
	VTHETA PR2	-623.2	-635.9	-644.0	-680.9	-725.1	-774.0	-806.9	-815.2	-823.4	VTHETA PR2
	VTHETA PR3	82.1	42.1	6.4	-85.6	-173.3	-233.7	-242.8	-236.8	-218.0	VTHETA PR3
	U 2	724.64	734.21	745.95	784.50	835.54	884.88	921.53	932.32	943.58	U 2
	U 3	724.29	733.73	743.22	771.64	809.59	847.45	875.91	885.36	894.84	U 3
	M 2	0.3784	0.3944	0.4096	0.4301	0.4358	0.4319	0.4287	0.4208	0.4125	M 2
	M 3	0.8316	0.8496	0.8652	0.8890	0.8498	0.8030	0.7786	0.7619	0.7408	M 3
	M(PR) 2	0.6746	0.6943	0.7093	0.7495	0.7859	0.8215	0.8452	0.8471	0.8489	M(PR) 2
	M(PR) 3	0.4323	0.4966	0.5474	0.6434	0.6474	0.6228	0.5808	0.5443	0.4820	M(PR) 3
	TURN (PR)	66.727	60.743	56.369	49.073	43.427	39.680	38.765	38.694	38.659	TURN (PR)
	PT2	13.710	13.830	13.950	14.130	14.200	14.190	14.180	14.120	14.060	PT2
	PT3	20.150	20.710	21.240	22.320	21.980	21.400	21.190	20.950	20.640	PT3
	PS2	12.420	12.424	12.428	12.443	12.463	12.483	12.497	12.501	12.506	PS2
	PS3	12.804	12.918	13.035	13.355	13.707	13.997	14.196	14.263	14.336	PS3
	TT2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	TT2
	TT3	604.000	601.500	598.900	593.300	589.100	588.800	593.000	595.600	599.100	TT3
STATOR F	PCT SPAN	96.20	92.50	86.80	70.80	49.89	29.71	13.99	9.40	5.00	PCT SPAN
	DIA	16.640	16.776	16.986	17.575	18.345	19.088	19.667	19.836	19.998	DIA
STATION 3	BETA 3	59.370	54.510	50.790	44.090	42.360	43.150	46.300	48.900	53.520	BETA 3
STATION 4	BETA 4	8.800	8.900	9.600	10.400	8.900	8.700	8.600	8.600	8.300	BETA 4
	V 3	939.08	954.87	967.97	986.38	945.19	898.97	877.80	862.83	843.72	V 3
	V 4	618.25	650.20	693.18	763.49	741.44	721.03	730.38	729.58	726.87	V 4
	VZ 3	477.47	553.23	611.59	708.21	697.84	654.72	604.99	565.78	500.44	VZ 3
	VZ 4	610.97	642.36	683.48	750.80	732.16	712.14	721.37	720.53	718.36	VZ 4
	V-THETA 3	806.39	775.88	749.61	686.06	636.32	613.75	633.09	648.57	676.79	V-THETA 3
	V-THETA 4	94.58	100.59	115.60	137.80	114.65	108.97	109.10	108.97	104.80	V-THETA 4
	M 3	0.8316	0.8496	0.8652	0.8890	0.8498	0.8030	0.7786	0.7619	0.7408	M 3
	M 4	0.5272	0.5574	0.5981	0.6673	0.6489	0.6297	0.6361	0.6339	0.6293	M 4
	TURN (PR)	50.371	45.446	41.152	33.672	33.420	34.364	37.565	40.145	45.047	TURN (PR)
	PT3	20.150	20.710	21.240	22.320	21.980	21.400	21.190	20.950	20.640	PT3
	PT4	19.580	20.000	20.610	21.710	21.160	20.590	20.480	20.370	20.220	PT4
	PS3	12.804	12.918	13.035	13.355	13.707	13.997	14.196	14.263	14.336	PS3
	PS4	16.202	16.196	16.182	16.106	15.945	15.763	15.597	15.542	15.485	PS4
	TT3	604.000	601.500	598.900	593.300	589.100	588.800	593.000	595.600	599.100	TT3
	TT4	604.000	601.500	598.900	593.300	589.100	588.800	593.000	595.600	599.100	TT4

ORIGINAL PAGE IS OF POOR QUALITY

Table B-12. Blade Element Performance (Continued)
Stage F, Rotor F - Stator F
Percent Equivalent Rotor Speed = 99.92 Equivalent Rotor Speed = 9928.5 Equivalent Weight Flow = 34.85 lb/sec
Circumferential Distortion
Streamline Position = 357 deg
U.S. Customary Units

INLET GUIDE VANE	PCT SPAN	95.90	91.90	87.00	70.90	49.60	29.01	13.71	9.20	4.50	PCT SPAN
	DIA	16.727	16.948	17.219	18.109	19.287	20.426	21.272	21.521	21.781	DIA
STATION 1	BETA 1	2.450	2.600	2.750	3.300	3.150	2.650	2.500	2.400	2.300	BETA 1
STATION 2	BETA 2	13.900	13.700	13.300	14.300	15.200	15.600	16.600	16.400	18.800	BETA 2
	V 1	382.87	390.03	404.56	424.87	427.87	415.60	406.58	399.68	389.50	V 1
	V 2	486.28	496.66	510.31	520.30	519.99	514.03	506.60	500.98	494.05	V 2
	VZ 1	382.52	389.63	404.09	424.16	427.22	415.15	406.19	399.33	389.18	VZ 1
	VZ 2	472.03	482.50	496.54	503.79	500.71	493.07	482.65	477.50	464.46	VZ 2
	V-THETA 1	16.37	17.69	19.41	24.46	23.51	19.21	17.73	16.74	15.63	V-THETA 1
	V-THETA 2	116.82	117.62	117.38	128.41	136.04	137.67	143.88	140.54	158.11	V-THETA 2
	M 1	0.3870	0.3537	0.3672	0.3862	0.3890	0.3775	0.3691	0.3627	0.3532	M 1
	M 2	0.4441	0.4539	0.4669	0.4765	0.4762	0.4705	0.4634	0.4580	0.4514	M 2
	TURN	-11.45	-11.10	-10.55	-10.99	-12.02	-12.88	-14.00	-13.89	-16.36	TURN
	PT1	13.950	14.000	14.100	14.260	14.310	14.250	14.210	14.170	14.110	PT1
	PT2	13.900	13.990	14.110	14.220	14.250	14.230	14.190	14.150	14.100	PT2
	PS1	12.835	12.840	12.846	12.866	12.892	12.915	12.934	12.939	12.944	PS1
	PS2	12.140	12.146	12.152	12.173	12.201	12.228	12.248	12.254	12.260	PS2
	TT1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	TT1
	TT2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	TT2
ROTOR F	PCT SPAN	94.99	90.01	85.01	70.01	49.99	30.01	14.99	10.01	5.01	PCT SPAN
	DIA	16.719	16.937	17.156	17.812	18.688	19.562	20.219	20.437	20.656	DIA
STATION 2	BETA 2	13.900	13.700	13.300	14.300	15.200	15.600	16.600	16.400	18.800	BETA 2
STATION 3	BETA 3	60.570	56.570	52.840	46.750	44.930	45.280	49.180	52.710	58.320	BETA 3
	BETA (PR) 2	52.167	51.956	51.693	52.481	54.404	56.580	58.174	58.907	59.404	BETA (PR) 2
	BETA (PR) 3	-13.045	-7.899	-3.389	3.993	11.007	17.300	19.549	20.541	22.090	BETA (PR) 3
	V 2	486.28	496.66	510.31	520.30	519.99	514.03	506.60	500.98	494.05	V 2
	V 3	958.48	969.61	976.89	994.45	960.03	912.99	887.68	867.65	842.47	V 3
	VZ 2	472.03	482.50	496.54	503.79	500.71	493.07	482.65	477.50	464.46	VZ 2
	VZ 3	470.06	533.20	589.79	681.16	679.15	641.38	579.01	524.55	441.62	VZ 3
	V-THETA 2	116.82	117.62	117.38	128.41	136.04	137.67	143.88	140.54	158.11	V-THETA 2
	V-THETA 3	833.19	807.71	778.15	724.09	677.49	647.68	670.32	688.81	715.61	V-THETA 3
	V(PR) 2	759.6	783.0	801.1	827.5	860.9	896.4	916.9	926.4	918.4	V(PR) 2
	V(PR) 3	486.1	541.5	591.6	683.3	692.9	673.8	617.2	563.0	479.4	V(PR) 3
	VTHETA PR2	-607.8	-616.6	-628.6	-656.1	-699.5	-747.2	-777.6	-791.8	-785.5	VTHETA PR2
	VTHETA PR3	108.9	74.0	34.9	-47.5	-132.1	-199.8	-205.6	-196.5	-179.2	VTHETA PR3
	U 2	724.64	734.21	745.95	784.50	835.54	884.88	921.53	932.32	943.58	U 2
	U 3	724.29	733.73	743.22	771.64	809.59	847.45	875.91	885.36	894.84	U 3
	M 2	0.4441	0.4539	0.4669	0.4765	0.4762	0.4705	0.4634	0.4580	0.4514	M 2
	M 3	0.8501	0.8631	0.8729	0.8957	0.8634	0.8166	0.7876	0.7658	0.7391	M 3
	M(PR) 2	0.7028	0.7156	0.7330	0.7578	0.7884	0.8205	0.8387	0.8470	0.8355	M(PR) 2
	M(PR) 3	0.4312	0.4820	0.5287	0.6154	0.6232	0.6027	0.5476	0.4969	0.4205	M(PR) 3
	TURN (PR)	65.112	59.806	55.072	48.467	43.351	39.216	38.552	38.297	37.252	TURN (PR)
	PT2	13.900	13.990	14.110	14.220	14.250	14.230	14.190	14.150	14.100	PT2
	PT3	20.500	20.980	21.400	22.500	22.380	21.840	21.560	21.220	20.810	PT3
	PS2	12.140	12.146	12.152	12.173	12.201	12.228	12.248	12.254	12.260	PS2
	PS3	12.780	12.903	13.026	13.366	13.760	14.091	14.318	14.394	14.477	PS3
	TT2	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	TT2
	TT3	605.400	603.400	600.600	595.300	591.200	589.500	594.200	596.900	599.800	TT3
STATOR F	PCT SPAN	96.20	92.50	88.80	70.80	49.89	29.71	13.99	9.40	5.00	PCT SPAN
	DIA	16.640	16.776	16.986	17.575	18.345	19.088	19.667	19.836	19.998	DIA
STATION 3	BETA 3	60.570	56.570	52.840	46.750	44.930	45.280	49.180	52.710	58.320	BETA 3
STATION 4	BETA 4	7.300	8.600	9.100	9.900	8.400	8.600	8.200	8.400	8.000	BETA 4
	V 3	958.48	969.61	976.89	994.45	960.03	912.99	887.68	867.65	842.47	V 3
	V 4	676.71	701.85	731.48	792.74	789.84	764.33	760.58	758.01	753.69	V 4
	VZ 3	470.06	533.20	589.79	681.16	679.15	641.38	579.01	524.55	441.62	VZ 3
	VZ 4	671.23	693.95	722.23	780.78	780.99	755.10	751.98	749.01	745.43	VZ 4
	V-THETA 3	833.19	807.71	778.15	724.09	677.49	647.68	670.32	688.81	715.61	V-THETA 3
	V-THETA 4	85.99	104.95	115.68	136.27	115.33	114.20	108.36	110.60	104.76	V-THETA 4
	M 3	0.8501	0.8631	0.8729	0.8957	0.8634	0.8166	0.7876	0.7658	0.7391	M 3
	M 4	0.5796	0.6037	0.6326	0.6940	0.6938	0.6704	0.6640	0.6599	0.6541	M 4
	TURN (PR)	53.076	47.811	43.703	36.832	36.490	36.594	40.846	44.160	50.158	TURN (PR)
	PT3	20.500	20.980	21.400	22.500	22.380	21.840	21.560	21.220	20.810	PT3
	PT4	20.030	20.400	20.860	21.860	21.610	20.890	20.530	20.380	20.200	PT4
	PS3	12.780	12.903	13.026	13.366	13.760	14.091	14.318	14.394	14.477	PS3
	PS4	15.953	15.947	15.930	15.844	15.665	15.456	15.274	15.215	15.155	PS4
	TT3	605.400	603.400	600.600	595.300	591.200	589.500	594.200	596.900	599.800	TT3
	TT4	605.400	603.400	600.600	595.300	591.200	589.500	594.200	596.900	599.800	TT4

APPENDIX C
STAGE G BLADE ELEMENT AND OVERALL PERFORMANCE DATA

Rotor, rotor-stator, and IGV-rotor-stator overall performance with uniform inlet conditions is tabulated in table C-1 for Stage G. Rotor and stator blade element performance data with uniform inlet conditions is presented in table C-3. Table C-2 is presented to illustrate the small differences at the near-design point between the values calculated from the data at the instrumentation stations and the values calculated from the data that have been translated to the blade row leading and trailing edges.

The blade element performance data with uniform inlet conditions are arranged in order of decreasing rotor speed and decreasing flow at each rotor speed.

The nomenclature used in the following tables is defined in Appendix B of this volume.

Table C-1. Overall Performance of Stage G
Uniform Inlet

(IGV Inlet) Equivalent Weight Flow kg/sec	lb/sec	Rotor $\bar{P}_3/\bar{P}_2$	η_{ad}	η_p	Rotor - Stator $\bar{P}_4/\bar{P}_2$	η_{ad}	η_p	IGV - Rotor - Stator $\bar{P}_4/\bar{P}_1$	η_{ad}	η_p
				100% Design Equivalent Rotor Speed						
18.27	40.29	1.413	0.774	0.785	1.360	0.685	0.698	1.353	0.674	0.686
17.96	39.59	1.575	0.888	0.896	1.542	0.843	0.853	1.533	0.833	0.842
17.56	38.72	1.606	0.891	0.900	1.571	0.847	0.858	1.564	0.840	0.850
16.98	37.43	1.629	0.894	0.902	1.587	0.842	0.853	1.580	0.835	0.845
16.43	36.23	1.648	0.902	0.910	1.585	0.828	0.839	1.579	0.821	0.832
15.70	34.62	1.666	0.889	0.899	1.585	0.797	0.811	1.578	0.790	0.803
15.38	33.92	1.676	0.884	0.893	1.584	0.782	0.796	1.579	0.776	0.790
				95% Design Equivalent Rotor Speed						
17.95	39.58	1.382	0.799	0.809	1.338	0.717	0.728	1.332	0.705	0.717
17.79	39.23	1.475	0.870	0.879	1.449	0.829	0.839	1.441	0.817	0.826
17.53	38.64	1.511	0.900	0.906	1.484	0.858	0.866	1.477	0.848	0.856
16.91	37.27	1.550	0.909	0.915	1.511	0.853	0.862	1.503	0.842	0.850
16.35	36.04	1.575	0.904	0.911	1.529	0.841	0.852	1.522	0.833	0.842
15.77	34.76	1.585	0.902	0.909	1.530	0.828	0.839	1.524	0.821	0.831
15.38	33.90	1.597	0.902	0.911	1.527	0.811	0.823	1.522	0.806	0.817
				85% Design Equivalent Rotor Speed						
17.09	37.68	1.308	0.816	0.823	1.289	0.769	0.778	1.282	0.752	0.761
16.83	37.11	1.364	0.899	0.905	1.344	0.854	0.861	1.338	0.843	0.848
16.07	35.44	1.386	0.915	0.921	1.366	0.873	0.880	1.358	0.857	0.863
15.40	33.96	1.405	0.912	0.915	1.383	0.867	0.873	1.378	0.858	0.863
14.69	32.38	1.426	0.907	0.911	1.400	0.857	0.864	1.396	0.849	0.857
13.92	30.70	1.441	0.893	0.899	1.408	0.833	0.842	1.403	0.825	0.833
				70% Design Equivalent Rotor Speed						
15.08	33.24	1.223	0.887	0.890	1.213	0.849	0.853	1.208	0.831	0.835
14.42	31.78	1.239	0.917	0.920	1.225	0.866	0.872	1.220	0.848	0.854
13.74	30.29	1.245	0.909	0.913	1.235	0.877	0.879	1.231	0.863	0.866
13.01	28.68	1.261	0.900	0.905	1.250	0.867	0.871	1.246	0.855	0.858
12.30	27.12	1.275	0.900	0.904	1.262	0.861	0.866	1.258	0.849	0.854
11.38	25.10	1.292	0.896	0.899	1.270	0.832	0.839	1.266	0.820	0.828

Table C-2. Blade Element Performance
Stage G, Rotor G - Stator G
Calculated Using Untranslated Values
Percent Equivalent Rotor Speed = 99.72 Equivalent Rotor Speed = 11563.00 Equivalent Weight Flow = 17.564 kg/sec
Uniform Inlet
SI (Metric) Units

CON= 1.000						
INLET GUIDE VANE	PCT SPAN	97.72	69.36	47.89	28.07	8.99
	DIA	0.483	0.462	0.441	0.419	0.395
STATION 1	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000
STATION 2	BETA 2	16.010	17.290	17.730	17.910	17.880
	V 1	93.16	96.82	97.47	96.33	92.13
	V 2	164.57	166.87	166.50	165.09	162.15
	VZ 1	93.16	96.68	97.12	95.72	91.65
	VZ 2	158.13	159.19	158.66	156.42	153.30
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00
	V-THETA 2	45.37	49.55	50.55	49.46	47.27
	M 1	0.2756	0.2868	0.2886	0.2854	0.2727
	M 2	0.4952	0.5026	0.5014	0.4970	0.4877
	TURN	-16.01	-17.27	-17.69	-17.83	-17.76
	UUBAR	0.1017	0.0593	0.0628	0.0736	0.0765
	DFAC	-0.571	-0.521	-0.503	-0.505	-0.543
	EFFP	0.9562	0.9722	0.9665	0.9651	0.9604
	INCID	-0.6600	-0.2900	0.0800	0.4160	0.7360
	DEVM	7.962	8.115	9.193	10.189	11.812
	P 1	10.394	10.140	10.156	10.152	10.113
	P 2	10.041	10.107	10.114	10.111	10.074
	T 1	288.167	288.167	288.167	288.167	288.167
	T 2	288.167	288.167	288.167	288.167	288.167
ROTOR	PCT SPAN	96.00	70.00	50.00	30.00	10.01
	DIA	0.480	0.457	0.434	0.410	0.388
STATION 2	BETA 2	16.010	17.290	17.730	17.910	17.880
STATION 3	BETA 3	56.230	49.900	47.280	47.060	51.410
	BETA(PR) 2	53.916	55.296	57.340	59.303	61.347
	BETA(PR) 3	4.461	15.959	22.723	28.005	33.449
	V 2	164.53	166.87	166.50	165.09	162.15
	V 3	297.70	288.41	281.91	274.81	263.19
	VZ 2	158.13	159.19	158.22	156.47	153.30
	VZ 3	165.46	185.71	191.07	186.87	183.80
	V-THETA 2	45.37	49.55	50.56	49.55	47.46
	V-THETA 3	247.47	220.54	206.91	200.82	205.26
	V(PR) 2	208.5	279.7	293.4	306.8	320.3
	V(PR) 3	166.0	193.3	207.5	212.3	197.1
	VTHETA PR2	-217.0	-229.9	-243.6	-263.5	-288.6
	VTHETA PR3	-12.9	-53.1	-80.0	-99.4	-108.2
	U 2	284.35	279.42	293.41	314.02	330.01
	U 3	260.38	273.65	286.92	300.20	313.47
	M 2	0.4952	0.5026	0.5014	0.4970	0.4877
	M 3	0.8627	0.8403	0.8218	0.7984	0.7564
	M(PR) 2	0.6081	0.8429	0.8836	0.9235	0.9632
	M(PR) 3	0.4810	0.5832	0.6050	0.6168	0.5664
	TURN(PR)	49.452	39.323	34.593	31.277	27.871
	UUBAR	0.1039	0.1231	0.0446	0.0426	0.1466
	LOSS PARA	0.1087	0.0446	0.0160	0.0155	0.0535
	DFAC	0.6502	0.5355	0.4971	0.5029	0.5359
	EFFP	0.8804	0.9067	0.9613	0.9617	0.9671
	EFF	0.7932	0.9003	0.9586	0.9591	0.9582
	INCID	5.873	6.570	7.663	8.424	7.661
	DEVM	14.481	9.967	7.819	7.792	12.656
	P 2	10.041	10.107	10.114	10.111	10.074
	P 3	16.076	16.230	16.357	16.348	16.023
	T 2	288.167	288.167	288.167	288.167	288.167
	T 3	340.461	334.550	332.378	332.378	335.772
STATOR	PCT SPAN	89.89	70.22	50.00	30.05	10.11
	DIA	0.428	0.447	0.466	0.484	0.503
STATION 3	BETA 3	56.230	49.900	47.280	47.060	51.410
STATION 4	BETA 4	13.740	13.780	15.180	16.240	14.600
	V 3	297.70	288.41	281.91	274.81	263.19
	V 4	212.09	213.55	216.96	215.00	210.30
	VZ 3	165.46	185.71	191.07	186.87	183.80
	VZ 4	206.02	209.78	209.37	206.39	203.27
	V-THETA 3	247.47	220.54	206.91	200.82	205.26
	V-THETA 4	50.38	49.51	50.81	50.12	53.71
	M 3	0.8627	0.8403	0.8218	0.7984	0.7564
	M 4	0.5932	0.6093	0.6157	0.6098	0.5922
	TURN(PR)	42.488	36.598	32.040	30.711	36.455
	UUBAR	0.0529	0.0474	0.0593	0.0783	0.0725
	LOSS PARA	0.0186	0.0175	0.0226	0.0308	0.0299
	DFAC	0.5285	0.4791	0.4437	0.4322	0.4523
	EFFP	0.9170	0.9104	0.8856	0.8388	0.8368
	INCID	11.738	8.508	6.349	4.838	5.021
	DEVM	21.160	13.620	13.539	14.957	13.656
	P 3	16.076	16.230	16.357	16.348	16.023
	P 4	15.749	15.945	16.009	15.909	15.656
	T 3	340.461	334.550	332.378	332.378	335.772
	T 4	340.461	334.550	332.378	332.378	335.772
	UUBAR FS					
	P3 FS					
	LOSS PARA FS					

ORIGINAL PAGE IS
OF POOR QUALITY

Table C-2. Blade Element Performance (Continued)
Stage G, Rotor G - Stator G
Calculated Using Untranslated Values
Percent Equivalent Rotor Speed = 99.72 Equivalent Rotor Speed =11562.00 Equivalent Weight Flow = 38.721 kg/sec
Uniform Inlet
SI (Metric) Units

COK=	1.009						
INLET GUIDE VANE	PCT SPAN	89.72	69.36	47.89	28.07	8.96	PCT SPAN
	DIA	17.000	18.170	19.340	20.420	21.460	DIA
	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
STATION 1	BETA 2	16.016	17.290	17.730	17.910	17.886	BETA 2
STATION 2	V 1	305.71	317.64	319.78	316.05	302.26	V 1
	V 2	539.80	547.48	546.25	541.64	531.99	V 2
	VZ 1	305.65	317.20	318.62	314.03	299.38	VZ 1
	VZ 2	516.81	522.29	519.08	513.18	502.45	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	148.86	162.57	165.96	165.65	162.25	V-THETA 2
	M 1	0.2759	0.2868	0.2888	0.2854	0.2727	M 1
	M 2	0.4952	0.5026	0.5014	0.4970	0.4877	M 2
	TURN	-16.01	-17.27	-17.69	-17.83	-17.76	TURN
	UUBAR	0.1017	0.0593	0.0658	0.0736	0.0765	UUBAR
	DFAC	-0.571	-0.521	-0.503	-0.505	-0.543	DFAC
	EFFP	0.9562	0.9722	0.9685	0.9651	0.9664	EFFP
	INCID	-0.6600	-0.2900	0.0800	0.4100	0.7300	INCID
	DEVM	7.942	8.115	9.193	10.189	11.617	DEVM
	P 1	14.640	14.707	14.730	14.724	14.668	P 1
	P 2	14.563	14.654	14.676	14.665	14.611	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	518.700	518.700	518.700	518.700	518.700	T 2
ROTOR	PCT SPAN	90.00	70.00	50.00	30.00	10.01	PCT SPAN
	DIA	16.932	17.795	18.658	19.521	20.384	DIA
	BETA 2	16.016	17.290	17.730	17.910	17.886	BETA 2
STATION 2	BETA 3	50.230	49.900	47.280	47.060	51.410	BETA 3
STATION 3	BETA(PRI) 2	53.916	55.296	57.340	59.303	61.347	BETA(PRI) 2
	BETA(PRI) 3	4.401	15.959	22.763	28.005	33.449	BETA(PRI) 3
	V 2	539.80	547.48	546.25	541.64	531.99	V 2
	V 3	976.71	946.24	924.91	901.62	883.40	V 3
	VZ 2	516.81	522.29	519.08	513.18	502.45	VZ 2
	VZ 3	542.90	508.30	626.86	613.10	537.40	VZ 3
	V-THETA 2	148.86	162.57	165.96	165.85	162.25	V-THETA 2
	V-THETA 3	811.90	723.56	678.84	658.85	673.43	V-THETA 3
	V(PRI) 2	680.9	717.6	740.6	1008.5	1054.7	V(PRI) 2
	V(PRI) 3	544.6	634.2	660.8	698.5	748.6	V(PRI) 3
	VTHETA PR2	-711.9	-754.2	-804.4	-870.4	-930.5	VTHETA PR2
	VTHETA PR3	-42.4	-114.2	-175.6	-326.1	-395.0	VTHETA PR3
	U 2	860.73	916.73	972.73	1030.25	1087.72	U 2
	U 3	854.25	847.80	941.35	984.91	1029.44	U 3
	M 2	0.4952	0.5026	0.5014	0.4970	0.4877	M 2
	M 3	0.8677	0.8403	0.8218	0.7984	0.7564	M 3
	MEPR1 2	0.6081	0.8424	0.8835	0.9235	0.9632	MEPR1 2
	MEPR1 3	0.4610	0.5632	0.6050	0.6608	0.6844	MEPR1 3
	TURN(PRI)	49.452	34.323	34.593	31.272	27.671	TURN(PRI)
	UUBAR	0.1039	0.1231	0.0440	0.0429	0.1466	UUBAR
	LOSS PARA	0.1067	0.0946	0.0160	0.0155	0.0558	LOSS PARA
	DFAC	0.6506	0.7355	0.9471	0.9624	0.9671	DFAC
	EFFP	0.8004	0.9061	0.9615	0.9617	0.9517	EFFP
	EFF	0.7935	0.9003	0.9516	0.9551	0.9453	EFF
	INCID	5.873	6.270	7.083	8.424	7.081	INCID
	DEVM	14.481	14.967	15.619	16.792	17.650	DEVM
	P 2	14.563	14.654	14.676	14.665	14.611	P 2
	P 3	23.516	23.540	23.723	23.710	23.634	P 3
	T 2	518.700	518.700	518.700	518.700	518.700	T 2
	T 3	602.630	602.190	598.280	598.260	604.390	T 3
STATOR	PCT SPAN	89.69	70.22	50.00	30.05	10.11	PCT SPAN
	DIA	16.870	17.596	18.330	19.060	19.790	DIA
	BETA 3	50.230	49.900	47.280	47.060	51.410	BETA 3
STATION 3	BETA 4	13.740	13.280	15.180	16.240	14.800	BETA 4
STATION 4	V 3	976.71	946.24	924.91	901.62	883.40	V 3
	V 4	695.85	707.18	711.80	735.40	683.96	V 4
	VZ 3	542.90	508.30	626.86	613.10	537.40	VZ 3
	VZ 4	695.85	688.25	680.91	677.14	666.88	VZ 4
	V-THETA 3	811.90	723.56	678.84	658.85	673.43	V-THETA 3
	V-THETA 4	165.27	162.44	186.37	197.24	175.20	V-THETA 4
	M 3	0.8627	0.8403	0.8218	0.7984	0.7564	M 3
	M 4	0.5932	0.6093	0.6157	0.6098	0.5927	M 4
	TURN(PRI)	42.488	30.598	32.040	30.711	36.455	TURN(PRI)
	UUBAR	0.0529	0.0474	0.0226	0.0783	0.0725	UUBAR
	LOSS PARA	0.0166	0.0175	0.0437	0.0308	0.0299	LOSS PARA
	DFAC	0.9285	0.4791	0.9856	0.4322	0.4263	DFAC
	EFFP	0.9170	0.9104	0.9349	0.8388	0.8368	EFFP
	INCID	11.738	6.508	13.539	4.638	5.021	INCID
	DEVM	21.180	13.620	23.723	14.457	13.656	DEVM
	P 3	23.516	23.540	23.220	23.710	23.234	P 3
	P 4	22.042	23.127	598.280	23.073	22.707	P 4
	T 3	612.630	602.190	598.280	598.280	604.390	T 3
	T 4	612.630	602.190			604.390	T 4
	UUBAR FS						UUBAR FS
	P3 FS						P3 FS
	LOSS PARA FS						LOSS PARA FS

Table C-3. Blade Element Performance (Continued)
Stage G, Rotor G - Stator G
Calculated Using Translated Values
Percent Equivalent Rotor Speed = 99.57 Equivalent Rotor Speed = 11546.0 Equivalent Weight Flow = 18.274 kg/sec
Uniform Inlet
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	89.86	69.09	47.80	27.87	9.29	PCT SPAN
	DIA	0.434	0.466	0.498	0.528	0.555	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	18.118	19.582	19.957	19.889	19.864	BETA 2
	V 1	124.67	128.76	128.86	127.54	123.67	V 1
	V 2	153.90	155.66	155.46	154.07	150.91	V 2
	VZ 1	124.65	128.55	128.33	126.64	122.40	VZ 1
	VZ 2	1[illegible].25	146.48	145.66	144.08	140.79	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	47.85	52.11	52.90	52.12	50.87	V-THETA 2
	M 1	0.3714	0.3839	0.3842	0.3802	0.3683	M 1
	M 2	0.4618	0.4673	0.4667	0.4623	0.4525	M 2
	TURN	-18.12	-19.56	-19.89	-19.77	-19.70	TURN
	UUBAR	0.0918	0.0539	0.0397	0.0318	0.0593	UUBAR
	DFAC	-0.080	-0.046	-0.040	-0.041	-0.048	DFAC
	EFFP	0.8589	0.9016	0.9248	0.9392	0.8979	EFFP
	INCID	-0.6600	-0.2900	0.0800	0.4100	0.7300	INCID
	DEVM	5.835	5.833	6.988	8.246	9.872	DEVM
	P 1	10.107	10.147	10.151	10.139	10.113	P 1
	P 2	10.022	10.094	10.112	10.108	10.059	P 2
	T 1	288.167	288.167	288.167	288.167	288.167	T 1
	T 2	288.167	288.167	288.167	288.167	288.167	T 2
	UUBAR FS						UUBAR FS
	P1 FS						P1 FS
	LOSS PARA FS						LOSS PARA FS
ROTOR	PCT SPAN	90.07	70.43	50.34	30.47	10.16	PCT SPAN
	DIA	0.430	0.452	0.475	0.497	0.520	DIA
ROTOR -L.E.	BETA 2	13.753	14.899	15.224	15.270	15.334	BETA 2
ROTOR -T.E.	BETA 3	44.785	41.650	38.732	37.021	39.415	BETA 3
	BETA(PR) 2	47.271	48.197	49.955	51.844	54.118	BETA(PR) 2
	BETA(PR) 3	8.830	16.192	23.789	29.978	35.767	BETA(PR) 3
	V 2	202.49	206.70	207.88	206.85	202.61	V 2
	V 3	319.30	310.38	296.68	283.92	265.24	V 3
	VZ 2	196.67	199.55	199.98	198.48	193.92	VZ 2
	VZ 3	226.62	231.81	231.03	225.90	203.92	VZ 3
	V-THETA 2	48.13	53.09	54.42	54.19	53.18	V-THETA 2
	V-THETA 3	224.92	206.17	185.30	170.36	167.59	V-THETA 3
	V(PR) 2	289.9	299.5	311.2	322.0	331.8	V(PR) 2
	V(PR) 3	229.4	241.6	253.1	261.9	252.7	V(PR) 3
	VTHETA PR2	-212.9	-223.2	-237.9	-252.6	-268.1	VTHETA PR2
	VTHETA PR3	-35.2	-67.3	-101.8	-130.3	-146.9	VTHETA PR3
	U 2	261.04	276.25	292.37	306.80	321.24	U 2
	U 3	260.12	273.48	287.15	300.66	314.48	U 3
	M 2	0.6173	0.6311	0.6350	0.6316	0.6177	M 2
	M 3	0.9466	0.9225	0.8821	0.8427	0.7789	M 3
	M(PR) 2	0.8836	0.9145	0.9501	0.9832	1.0115	M(PR) 2
	M(PR) 3	0.6799	0.7180	0.7525	0.7772	0.7420	M(PR) 3
	TURN(PR)	38.439	31.988	26.135	21.840	18.350	TURN(PR)
	UUBAR	0.3056	0.2027	0.1429	0.1362	0.2316	UUBAR
	LOSS PARA	0.1083	0.0734	0.0517	0.0488	0.0811	LOSS PARA
	DFAC	0.4269	0.3844	0.3503	0.3330	0.3843	DFAC
	EFFP	0.7477	0.8108	0.8431	0.8324	0.7047	EFFP
	EFF	0.7336	0.8063	0.8350	0.8244	0.6925	EFF
	INCID	-0.772	-0.534	0.274	0.923	0.606	INCID
	DEVM	18.849	10.199	8.669	9.723	14.895	DEVM
	P 2	10.022	10.094	10.112	10.108	10.059	P 2
	P 3	14.735	14.788	14.464	14.043	13.386	P 3
	T 2	288.167	288.167	288.167	288.167	288.167	T 2
	T 3	333.889	329.672	325.328	322.594	323.555	T 3
STATOR	PCT SPAN	90.02	70.31	50.34	30.11	10.14	PCT SPAN
	DIA	0.429	0.448	0.467	0.487	0.506	DIA
STATOR-L.E.	BETA 3	42.543	39.087	37.132	35.944	38.514	BETA 3
STATOR-T.E.	BETA 4	18.479	16.4[illegible]	15.230	15.631	16.801	BETA 4
	V 3	332.87	327.71	308.27	292.34	271.77	V 3
	V 4	270.33	277.20	272.68	264.18	252.07	V 4
	VZ 3	245.24	254.23	245.39	236.04	211.93	VZ 3
	VZ 4	256.39	265.77	262.81	253.88	240.51	VZ 4
	V-THETA 3	225.05	206.5[illegible]	185.80	171.14	168.66	V-THETA 3
	V-THETA 4	85.68	78.39	71.55	71.03	72.62	V-THETA 4
	M 3	0.9966	0.9836	0.9227	0.8714	0.8005	M 3
	M 4	0.7818	0.8100	0.8011	0.7767	0.7359	M 4
	TURN(PR)	24.062	22.636	21.853	20.234	21.615	TURN(PR)
	UUBAR	0.1486	0.0778	0.0605	0.0678	0.0912	UUBAR
	LOSS PARA	0.0512	0.0282	0.0230	0.0268	0.0372	LOSS PARA
	DFAC	0.3403	0.3035	0.2639	0.2397	0.2270	DFAC
	EFFP	0.6838	0.8050	0.7961	0.7210	0.4863	EFFP
	INCID	-1.950	-2.307	-3.804	-6.278	-7.871	INCID
	DEVM	25.898	16.767	15.573	14.318	15.604	DEVM
	P 3	14.735	14.788	14.464	14.043	13.386	P 3
	P 4	13.709	14.257	14.094	13.671	12.965	P 4
	T 3	333.889	329.672	325.328	322.594	323.555	T 3
	T 4	333.889	329.672	325.328	322.594	323.555	T 4

Table C-3. Blade Element Performance (Continued)
Stage G, Rotor G - Stator G
Calculated Using Translated Values
Percent Equivalent Rotor Speed = 99.63 Equivalent Rotor Speed = 11553.00 Equivalent Weight Flow = 17.959 kg/sec
Uniform Inlet
SI (Metric) Units

INLET GUIDE VANE						
I.G.V.-L.E.	PCT SPAN	89.60	69.09	47.80	27.87	9.29	PCT SPAN
I.G.V.-T.E.	DIA	0.434	0.466	0.498	0.528	0.555	DIA
	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
	BETA 2	17.663	19.128	19.726	19.766	19.848	BETA 2
	V 1	122.93	126.07	126.15	124.85	120.59	V 1
	V 2	152.02	153.90	153.50	151.81	147.28	V 2
	VZ 1	122.90	125.80	125.63	123.97	119.74	VZ 1
	VZ 2	144.83	145.23	144.04	142.07	139.29	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	46.12	50.37	51.65	51.05	50.28	V-THETA 2
	M 1	0.3660	0.3757	0.3759	0.3719	0.3601	M 1
	M 2	0.4559	0.4618	0.4606	0.4553	0.4474	M 2
	TURN	-17.66	-19.10	-19.66	-19.65	-19.68	TURN
	UUBAR	0.0994	0.0516	0.0436	0.0436	0.0545	UUBAR
	DFAC	-0.080	-0.080	-0.051	-0.048	-0.060	DFAC
	EFFP	0.8499	0.9103	0.9220	0.9213	0.9167	EFFP
	INCID	-0.6600	-0.2900	0.0800	0.4100	0.7300	INCID
	DEVM	6.290	6.287	7.219	8.368	9.889	DEVM
	P 1	10.114	10.146	10.149	10.137	10.112	P 1
	P 2	10.025	10.097	10.108	10.096	10.364	P 2
	T 1	288.167	288.167	288.167	288.167	288.167	T 1
	T 2	288.167	288.167	288.167	288.167	288.167	T 2
	UUBAR FS						UUBAR FS
	P1 FS						P1 FS
	LOSS PARA FS						LOSS PARA FS

ROTOR							
ROTOR -L.E.	PCT SPAN	90.07	70.43	50.34	30.47	10.16	PCT SPAN
ROTOR -T.E.	DIA	0.430	0.462	0.475	0.497	0.520	DIA
	BETA 2	13.456	14.607	15.109	15.245	15.369	BETA 2
	BETA 3	51.748	48.910	44.708	44.623	49.178	BETA 3
	BETA(PR) 2	47.943	48.820	50.576	52.514	54.578	BETA(PR) 2
	BETA(PR) 3	4.474	15.158	22.815	28.429	34.583	BETA(PR) 3
	V 2	199.37	202.70	204.48	202.93	199.13	V 2
	V 3	310.77	299.06	287.03	277.34	261.5.	V 3
	VZ 2	193.37	196.91	196.82	194.74	191.23	VZ 2
	VZ 3	196.03	204.14	203.70	196.85	187.37	VZ 3
	V-THETA 2	46.39	51.32	53.14	53.07	52.56	V-THETA 2
	V-THETA 3	284.57	218.33	201.63	194.28	197.21	V-THETA 3
	V(PR) 2	219.4	249.2	280.3	320.7	370.3	V(PR) 2
	V(PR) 3	192.8	211.7	221.5	224.8	240.1	V(PR) 3
	VTHETA PR2	-214.8	-225.1	-234.4	-253.4	-268.4	VTHETA PR2
	VTHETA PR3	-16.7	-95.3	-85.7	-106.6	-117.5	VTHETA PR3
	U 2	261.20	270.41	292.55	306.99	321.43	U 2
	U 3	260.23	273.05	287.32	300.14	314.67	U 3
	M 2	0.6071	0.6213	0.6238	0.6187	0.6086	M 2
	M 3	0.9065	0.8775	0.8117	0.8044	0.7565	M 3

	M(PR) 2	0.6812	0.6926	0.9468	0.9778	1.0076	M(PR) 2
	M(PR) 3	0.3634	0.4213	0.4946	0.6564	0.8003	M(PR) 3
	TURN(PR)	62.957	53.644	27.726	24.056	19.993	TURN(PR)
	UUBAR	0.0 3	0.0944	0.0361	0.0544	0.1698	UUBAR
	LOSS PARA	0.0130	0.0543	0.0131	0.0198	0.3604	LOSS PARA
	DFAC	0.776	0.0411	0.4724	0.4779	0.5563	DFAC
	EFFP	0.304	0.9207	0.9604	0.9466	0.9312	EFFP
	EFF	0.167	0.9153	0.9631	0.9431	0.8709	EFF
	INCID	-0.116	0.6090	0.895	1.594	1.068	INCID
	DEVM	14.993	9.105	7.647	8.178	13.714	DEVM
	P 2	10.025	10.097	10.108	10.096	10.064	P 2
	P 3	10.163	10.172	10.044	15.835	15.332	P 3
	T 2	288.167	288.167	288.167	288.167	288.167	T 2
	T 3	339.194	333.922	330.389	330.094	333.033	T 3

STATOR							
STATOR-L.E.	PCT SPAN	90.07	70.31	50.34	30.11	10.14	PCT SPAN
STATOR-T.E.	DIA	0.425	0.448	0.467	0.487	0.506	DIA
	BETA 3	50.291	45.574	41.370	43.544	48.052	BETA 3
	BETA 4	14.453	13.946	15.878	17.019	14.419	BETA 4
	V 3	310.81	300.36	284.79	283.92	267.35	V 3
	V 4	197.37	221.41	217.29	204.89	200.42	V 4
	VZ 3	196.40	214.36	214.02	205.36	179.13	VZ 3
	VZ 4	212.42	219.28	208.77	200.29	191.61	VZ 4
	V-THETA 3	240.71	216.70	202.17	199.18	198.47	V-THETA 3
	V-THETA 4	50.45	52.46	59.38	58.31	56.46	V-THETA 4
	M 3	0.9253	0.9024	0.8678	0.8317	0.7733	M 3
	M 4	0.6163	0.6247	0.6167	0.5904	0.5650	M 4
	TURN(PR)	32.630	31.609	27.441	26.443	31.571	TURN(PR)
	UBLAR	0.0933	0.0497	0.0565	0.0707	0.0527	UUBAR
	LOSS PARA	0.0167	0.0183	0.0214	0.0277	0.0215	LOSS PARA
	DFAC	0.5246	0.4812	0.4564	0.4573	0.4808	DFAC
	EFFP	0.9235	0.9210	0.9049	0.8773	0.8958	EFFP
	INCID	5.790	4.130	2.431	1.316	1.704	INCID
	DEVM	21.882	14.280	14.220	15.704	15.223	DEVM
	P 3	10.163	10.172	10.044	15.835	15.332	P 3
	P 4	15.736	15.542	15.693	15.427	15.306	P 4
	T 3	339.194	333.922	330.389	330.094	333.033	T 3
	T 4	339.194	333.922	330.389	330.094	333.167	T 4

ORIGINAL PAGE IS
OF POOR QUALITY

Table C-3. Blade Element Performance (Continued)
Stage G, Rotor G - Stator G
Calculated Using Translated Values
Percent Equivalent Rotor Speed = 99.72 Equivalent Rotor Speed = 11563.00 Equivalent Weight Flow = 17.564 kg/sec
Uniform Inlet
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	89.86	69.09	47.80	27.87	4.29	PCT SPAN
	DIA	0.434	0.466	0.498	0.528	0.555	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	17.842	19.187	19.587	19.731	19.676	BETA 2
	V 1	117.54	122.51	123.88	123.46	116.01	V 1
	V 2	147.77	149.63	149.44	148.03	145.30	V 2
	VZ 1	117.51	122.31	123.37	122.59	116.79	VZ 1
	VZ 2	140.09	141.15	140.34	138.57	135.71	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	45.27	49.12	49.44	49.70	46.53	V-THETA 2
	M 1	0.3496	0.3648	0.3690	0.3677	0.3510	M 1
	M 2	0.4427	0.4465	0.4479	0.4435	0.4350	M 2
	TURN	-17.84	-19.16	-19.52	-19.62	-19.51	TURN
	UUBAR	0.0047	0.0375	0.0412	0.0454	0.0472	UUBAR
	DFAC	-0.102	-0.060	-0.043	-0.034	-0.059	DFAC
	EFFP	0.9050	0.9331	0.9217	0.9113	0.9206	EFFP
	INCID	-0.6660	-0.2900	0.0800	0.4100	0.7300	INCID
	DEVM	6.111	6.226	7.357	8.403	10.058	DEVM
	P 1	10.094	10.140	10.156	10.152	10.113	P 1
	P 2	10.041	10.107	10.119	10.111	10.074	P 2
	T 1	288.167	288.167	288.167	288.167	288.167	T 1
	T 2	288.167	288.167	288.167	288.167	288.167	T 2
	UUBAR FS						UUBAR FS
	P1 FS						P1 FS
	LOSS PARA FS						LOSS PARA FS
ROTOR	PCT SPAN	90.07	70.43	50.34	30.47	10.16	PCT SPAN
	DIA	0.430	0.462	0.495	0.527	0.520	DIA
ROTOR -L.E.	BETA 2	13.683	14.763	15.115	15.322	15.367	BETA 2
ROTOR -T.E.	BETA 3	50.831	50.613	48.166	47.926	52.754	BETA 3
	BETA(PR) 2	49.098	50.032	51.763	53.581	55.700	BETA(PR) 2
	BETA(PR) 3	4.655	16.483	23.700	29.196	35.463	BETA(PR) 3
	V 2	196.51	196.61	197.64	196.57	193.15	V 2
	V 3	295.50	283.21	277.43	270.41	257.42	V 3
	VZ 2	187.03	189.93	190.23	188.57	184.85	VZ 2
	VZ 3	161.67	180.91	184.81	180.78	155.33	VZ 3
	V-THETA 2	45.53	50.05	51.38	51.66	50.73	V-THETA 2
	V-THETA 3	247.34	220.35	206.45	200.21	204.30	V-THETA 3
	V(PR) 2	285.7	295.8	307.7	318.3	328.9	V(PR) 2
	V(PR) 3	102.2	188.8	202.3	207.9	191.8	V(PR) 3
	VTHETA PR2	-215.9	-226.6	-241.4	-255.6	-271.0	VTHETA PR2
	VTHETA PR3	-13.2	-53.5	-81.1	-100.9	-110.6	VTHETA PR3
	U 2	261.43	276.65	292.80	307.25	321.71	U 2
	U 3	260.91	273.68	287.57	301.10	314.94	U 3
	M 2	0.5847	0.5981	0.6014	0.5979	0.5888	M 2
	M 3	0.8553	0.8247	0.8070	0.7841	0.7580	M 3
	M(PR) 2	0.3876	0.8998	0.9365	0.9681	0.9992	M(PR) 2
	M(PR) 3	0.4095	0.5493	0.5885	0.6028	0.5497	M(PR) 3
	TURN(PR)	44.441	33.533	28.032	24.390	20.240	TURN(PR)
	UUBAR	0.2745	0.1130	0.0413	0.0409	0.1404	UUBAR
	LOSS PARA	0.0981	0.0408	0.0149	0.0148	0.0515	LOSS PARA
	DFAC	0.6849	0.5769	0.5388	0.5365	0.6150	DFAC
	EFFP	0.8084	0.9067	0.9613	0.9617	0.8671	EFFP
	EFF	0.7932	0.9003	0.9586	0.9591	0.8582	EFF
	INCID	1.055	1.307	2.083	2.663	2.192	INCID
	DEVM	14.674	10.[illegible]	8.580	8.913	14.592	DEVM
	P 2	10.041	10.107	10.119	10.111	10.074	P 2
	P 3	16.076	16.230	16.357	16.348	16.023	P 3
	T 2	288.167	288.167	288.167	288.167	288.167	T 2
	T 3	340.461	334.550	332.378	332.378	335.772	T 3
STATOR	PCT SPAN	90.02	70.31	50.34	30.11	10.14	PCT SPAN
	DIA	0.429	0.448	0.467	0.487	0.506	DIA
STATOR-L.E.	BETA 3	55.800	49.552	46.990	46.884	51.632	BETA 3
STATOR-T.E.	BETA 4	14.467	13.674	15.922	17.174	15.846	BETA 4
	V 3	299.74	290.15	283.40	276.07	262.80	V 3
	V 4	201.26	206.09	206.63	202.95	196.05	V 4
	VZ 3	168.19	188.17	193.10	188.33	162.77	VZ 3
	VZ 4	194.85	200.00	198.48	193.51	187.97	VZ 4
	V-THETA 3	247.69	220.73	207.00	201.14	205.60	V-THETA 3
	V-THETA 4	50.35	49.40	56.02	59.81	53.35	V-THETA 4
	M 3	0.8678	0.8461	0.8268	0.8026	0.7551	M 3
	M 4	0.5610	0.5807	0.5844	0.5733	0.5496	M 4
	TURN(PR)	41.311	35.659	31.017	29.628	35.684	TURN(PR)
	UUBAR	0.0524	0.0469	0.0588	0.0777	0.0727	UUBAR
	LOSS PARA	0.0184	0.0172	0.0223	0.0304	0.0298	LOSS PARA
	DFAC	0.5671	0.5147	0.4827	0.4781	0.5052	DFAC
	EFFP	0.9259	0.9262	0.9012	0.8647	0.8659	EFFP
	INCID	11.308	8.158	6.051	4.656	5.246	INCID
	DEVM	21.907	14.209	14.264	15.858	14.652	DEVM
	P 3	16.076	16.230	16.357	16.348	16.023	P 3
	P 4	15.749	15.945	16.009	15.909	15.656	P 4
	T 3	340.461	334.550	332.378	332.378	335.772	T 3
	T 4	340.461	334.550	332.378	332.378	335.772	T 4

ORIGINAL PAGE IS OF POOR QUALITY

Table C-3. Blade Element Performance (Continued)
Stage G. Rotor G - Stator G
Calculated Using Translated Values
Percent Equivalent Rotor Speed = 99.47 Equivalent Rotor Speed =11535.00 Equivalent Weight Flow = 16.977 kg/sec
Uniform Inlet
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	89.86	69.09	47.80	27.87	9.29	PCT SPAN
	DIA	0.434	0.466	0.499	0.528	0.555	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	17.451	18.986	19.209	19.463	19.655	BETA 2
	V 1	114.29	117.62	118.36	117.50	114.27	V 1
	V 2	140.81	143.14	143.21	141.65	138.91	V 2
	VZ 1	114.27	117.43	117.88	116.67	113.09	VZ 1
	VZ 2	134.31	135.19	134.80	132.82	129.76	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	42.22	46.51	46.97	46.94	46.35	V-THETA 2
	M 1	0.3397	0.3498	0.3521	0.3495	0.3397	M 1
	M 2	0.4211	0.4283	0.4285	0.4237	0.4152	M 2
	TURN	-17.45	-18.96	-19.15	-19.35	-19.49	TURN
	UUBAR	0.0934	0.0407	0.0309	0.0373	0.0619	UUBAR
	DFAC	-0.083	-0.058	-0.049	-0.042	-0.040	DFAC
	EFFP	0.4540	0.9261	0.9408	0.9279	0.8906	EFFP
	INCID	-0.0600	-0.2900	0.0800	0.4100	0.7300	INCID
	DEVM	0.502	6.428	7.734	8.670	10.060	DEVM
	P 1	10.108	10.139	10.148	10.140	10.121	P 1
	P 2	10.035	10.106	10.122	10.110	10.073	P 2
	T 1	288.167	288.167	288.167	288.167	288.167	T 1
	T 2	288.167	288.167	288.167	288.167	288.167	T 2
	UUBAR FS						UUBAR FS
	P1 FS						P1 FS
	LOSS PARA FS						LOSS PARA FS
ROTOR	PCT SPAN	90.07	70.43	50.34	30.47	10.16	PCT SPAN
	DIA	0.430	0.452	0.475	0.497	0.520	DIA
ROTOR -L.E.	BETA 2	13.521	14.758	14.979	15.275	15.483	BETA 2
ROTOR -T.E.	BETA 3	62.255	54.166	51.610	52.313	58.132	BETA 3
	BETA(PR) 2	51.030	51.798	53.404	55.270	57.303	BETA(PR) 2
	BETA(PR) 3	4.640	18.110	25.606	31.648	38.900	BETA(PR) 3
	V 2	141.66	180.22	187.53	186.20	182.88	V 2
	V 3	281.62	272.71	265.36	257.66	246.93	V 3
	VZ 2	170.61	179.90	180.61	178.65	174.91	VZ 2
	VZ 3	131.10	159.61	163.88	157.20	130.07	VZ 3
	V-THETA 2	42.47	47.39	48.32	48.79	48.45	V-THETA 2
	V-THETA 3	249.23	221.02	208.33	203.48	209.23	V-THETA 3
	V(PR) 2	286.8	291.0	303.7	314.2	324.6	V(PR) 2
	V(PR) 3	131.5	166.1	182.2	185.4	168.0	V(PR) 3
	VTHETA PR2	-218.3	-228.6	-243.8	-257.7	-277.5	VTHETA PR2
	VTHETA PR3	-10.6	-56.2	-78.5	-96.9	-105.0	VTHETA PR3
	U 2	280.79	279.98	282.69	306.51	320.93	U 2
	U 3	259.87	273.22	286.87	300.37	314.18	U 3
	M 2	0.5497	0.5644	0.5666	0.5603	0.5536	M 2
	M 3	0.8083	0.7876	0.7660	0.7407	0.7022	M 3
	M(PR) 2	0.8498	0.8820	0.9210	0.9522	0.9826	M(PR) 2
	M(PR) 3	0.3775	0.4854	0.5258	0.5330	0.4777	M(PR) 3
	TURN(PR)	40.367	33.673	27.833	23.606	18.419	TURN(PR)
	UUBAR	0.2926	0.0360	0.0440	0.0547	0.1516	UUBAR
	LOSS PARA	0.1060	0.0456	0.0157	0.0193	0.0510	LOSS PARA
	DFAC	0.7950	0.9156	0.0055	0.0102	0.0927	DFAC
	EFFP	0.8084	0.9696	0.9612	0.9516	0.7866	EFFP
	EFF	0.7908	3.068	0.9584	0.9481	0.8593	EFF
	INCID	2.987	12.115	3.780	4.354	3.800	INCID
	DEVM	14.600	10.196	10.483	11.389	16.021	DEVM
	P 2	10.035	10.143	10.122	10.110	10.073	P 2
	P 3	10.143	288.167	10.579	10.550	10.366	P 3
	T 2	288.167	335.383	288.167	288.167	288.167	T 2
	T 3	341.555		333.683	334.128	338.050	T 3
STATOR	PCT SPAN	90.02	70.31	50.34	30.11	10.14	PCT SPAN
	DIA	0.429	0.448	0.467	0.487	0.506	DIA
STATOR-L.E.	BETA 3	61.299	53.251	50.728	51.345	56.985	BETA 3
STATOR-T.E.	BETA 4	17.082	15.739	16.204	16.936	16.249	BETA 4
	V 3	284.32	278.46	270.10	262.19	251.53	V 3
	V 4	172.35	198.36	199.44	197.20	194.10	V 4
	VZ 3	136.54	165.44	170.81	163.51	136.82	VZ 3
	VZ 4	184.61	190.65	191.31	188.27	185.73	VZ 4
	V-THETA 3	249.36	221.40	208.84	204.42	210.56	V-THETA 3
	V-THETA 4	50.73	53.78	55.54	57.33	54.13	V-THETA 4
	M 3	0.8171	0.7998	0.7813	0.7552	0.7106	M 3
	M 4	0.5367	0.5966	0.5616	0.5545	0.5414	M 4
	TURN(PR)	43.615	37.475	34.474	34.330	40.040	TURN(PR)
	UUBAR	0.0023	0.0897	0.0837	0.0913	0.0614	UUBAR
	LOSS PARA	0.0215	0.0254	0.0317	0.0398	0.0333	LOSS PARA
	DFAC	0.5634	0.5136	0.4861	0.4814	0.4479	DFAC
	EFFP	0.9078	0.8845	0.8510	0.8476	0.8324	EFFP
	INCID	10.807	11.428	9.790	9.120	10.609	INCID
	DEVM	22.102	16.672	14.545	15.621	19.053	DFVM
	P 3	10.193	10.434	10.579	10.550	10.366	P 3
	P 4	10.035	10.040	10.118	10.074	10.480	P 4
	T 3	341.555	335.383	333.683	334.128	338.050	T 3
	T 4	341.555	335.383	333.683	334.128	338.050	T 4

Table C-3. Blade Element Performance (Continued)
Stage G, Rotor G - Stator G
Calculated Using Translated Values
Percent Equivalent Rotor Speed = 99.49 Equivalent Rotor Speed = 11537.00 Equivalent Weight Flow = 16.434 kg/sec
Uniform Inlet
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	89.86	69.04	47.80	27.87	9.28	PCT SPAN
	DIA	0.434	0.466	0.498	0.528	0.555	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	17.416	18.566	19.276	19.515	19.722	BETA 2
	V 1	104.72	113.71	114.45	113.50	109.66	V 1
	V 2	135.65	137.66	137.54	136.15	133.34	V 2
	VZ 1	109.70	113.63	113.98	112.70	108.53	VZ 1
	VZ 2	129.42	130.33	129.42	127.62	124.51	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	40.60	43.77	45.26	45.24	44.63	V-THETA 2
	M 1	0.3258	0.3380	0.3402	0.3373	0.3256	M 1
	M 2	0.4061	0.4113	0.4110	0.4067	0.3980	M 2
	TURN	-17.41	-18.54	-19.27	-19.41	-19.56	TURN
	UUBAR	0.0796	0.0433	0.0392	0.0389	0.0582	UUBAR
	DFAC	-0.087	-0.056	-0.042	-0.036	-0.046	DFAC
	EFFP	0.8747	0.9190	0.9230	0.9225	0.8962	EFFP
	INCID	-0.6600	-0.2900	0.0800	0.4100	0.7300	INCID
	DEVM	6.537	6.868	7.668	8.614	10.013	DEVM
	P 1	10.105	10.141	10.150	10.142	10.117	P 1
	P 2	10.048	10.108	10.170	10.112	10.076	P 2
	T 1	288.167	288.167	288.167	288.167	288.167	T 1
	T 2	288.167	288.167	288.167	288.167	288.167	T 2
	UUBAR FS						UUBAR FS
	P1 FS						P1 FS
	LOSS PARA FS						LOSS PARA FS
ROTOR	PCT SPAN	90.07	70.43	50.34	30.47	10.16	PCT SPAN
	DIA	0.430	0.462	0.495	0.527	0.520	DIA
ROTOR -L.E.	BETA 2	13.560	14.541	15.147	15.435	15.651	BETA 2
ROTOR -T.E.	BETA 3	61.501	55.448	53.279	53.789	61.321	BETA 3
	BETA(PR) 2	52.461	53.388	54.980	56.724	58.738	BETA(PR) 2
	BETA(PR) 3	5.559	18.686	26.841	32.679	41.187	BETA(PR) 3
	V 2	173.93	177.82	178.75	177.66	174.27	V 2
	V 3	280.92	269.19	260.13	253.84	242.69	V 3
	VZ 2	169.05	171.95	172.07	170.33	166.54	VZ 2
	VZ 3	134.03	152.63	155.38	149.67	116.25	VZ 3
	V-THETA 2	40.83	44.60	46.57	47.09	46.66	V-THETA 2
	V-THETA 3	246.87	221.65	208.30	204.42	212.51	V-THETA 3
	V(PR) 2	277.5	288.4	300.2	311.0	321.6	V(PR) 2
	V(PR) 3	134.7	161.3	174.5	178.5	155.4	V(PR) 3
	VTHETA PR2	-220.0	-231.4	-245.6	-264.5	-274.3	VTHETA PR2
	VTHETA PR3	-17.0	-51.6	-78.6	-66.0	-101.7	VTHETA PR3
	U 2	260.84	276.03	292.14	306.56	320.99	U 2
	U 3	259.92	273.27	286.92	300.43	314.14	U 3
	M 2	0.5250	0.5374	0.5404	0.5369	0.5261	M 2
	M 3	0.8062	0.7751	0.7486	0.7276	0.6873	M 3
	M(PR) 2	0.8375	0.8717	0.9074	0.9398	0.9710	M(PR) 2
	M(PR) 3	0.3865	0.4643	0.5023	0.5117	0.4395	M(PR) 3
	TURN(PR)	46.899	34.688	28.126	24.074	17.576	TURN(PR)
	UUBAR	0.2404	0.1031	0.0413	0.0515	0.1640	UUBAR
	LOSS PARA	0.0858	0.0368	0.0146	0.0179	0.0548	LOSS PARA
	DFAC	0.7803	0.6706	0.6284	0.6319	0.7365	DFAC
	EFFP	0.8438	0.9274	0.9650	0.9569	0.8608	EFFP
	EFF	0.8325	0.9167	0.9624	0.9536	0.8508	EFF
	INCID	4.418	4.658	5.312	5.812	6.240	INCID
	DEVM	15.579	12.690	11.716	12.418	20.394	DEVM
	P 2	10.048	10.108	10.120	10.112	10.076	P 2
	P 3	16.578	16.633	16.688	16.729	16.522	P 3
	T 2	288.167	288.167	288.167	288.167	288.167	T 2
	T 3	341.406	336.244	334.172	334.917	339.572	T 3
STATOR	PCT SPAN	90.02	70.31	50.34	30.11	10.14	PCT SPAN
	DIA	0.429	0.448	0.467	0.487	0.506	DIA
STATOR-L.E.	BETA 3	60.584	54.525	52.224	52.830	60.113	BETA 3
STATOR-T.E.	BETA 4	18.226	15.906	16.503	17.415	17.662	BETA 4
	V 3	283.59	272.71	264.48	256.11	247.02	V 3
	V 4	187.17	196.54	198.41	197.87	197.09	V 4
	VZ 3	139.28	158.22	161.87	154.71	122.92	VZ 3
	VZ 4	177.78	188.94	190.03	188.42	187.14	VZ 4
	V-THETA 3	247.02	222.02	208.85	204.36	213.87	V-THETA 3
	V-THETA 4	58.54	53.85	56.30	59.10	59.60	V-THETA 4
	M 3	0.8149	0.7864	0.7625	0.7412	0.7008	M 3
	M 4	0.5187	0.5506	0.5580	0.5558	0.5494	M 4
	TURN(PR)	42.357	38.600	35.677	36.338	42.373	TURN(PR)
	UUBAR	0.1635	0.1177	0.1108	0.1179	0.0844	UUBAR
	LOSS PARA	0.0564	0.0429	0.0419	0.0461	0.0343	LOSS PARA
	DFAC	0.5818	0.5143	0.4800	0.4693	0.4731	DFAC
	EFFP	0.7645	0.8008	0.7923	0.7633	0.8050	EFFP
	INCID	16.092	13.132	11.287	10.606	13.745	INCID
	DEVM	25.645	16.242	14.844	16.099	16.462	DEVM
	P 3	16.578	16.633	16.688	16.729	16.522	P 3
	P 4	15.619	15.977	16.097	16.127	16.131	P 4
	T 3	341.406	336.244	334.172	334.917	339.572	T 3
	T 4	341.406	336.244	334.172	334.917	339.572	T 4

Table C-3. Blade Element Performance (Continued)
Stage G, Rotor G - Stator G
Calculated Using Translated Values
Percent Equivalent Rotor Speed = 99.28 Equivalent Rotor Speed = 11513.00 Equivalent Weight Flow = 15.703 kg/sec
Uniform Inlet
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	89.66	69.09	47.80	27.87	9.29	PCT SPAN
	DIA	0.434	0.466	0.498	0.528	0.555	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	17.475	18.954	19.738	19.670	19.660	BETA 2
	V 1	103.17	107.36	108.35	108.21	105.91	V 1
	V 2	127.24	129.64	129.51	128.04	126.19	V 2
	VZ 1	103.15	107.19	107.90	107.45	104.82	VZ 1
	VZ 2	121.35	122.46	121.52	119.90	117.88	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	38.20	42.05	43.60	42.86	42.11	V-THETA 2
	M 1	0.3060	0.3187	0.3217	0.3213	0.3143	M 1
	M 2	0.3792	0.3866	0.3862	0.3817	0.3760	M 2
	TURN	-17.47	-18.93	-19.67	-19.56	-19.50	TURN
	UUBAR	0.0962	0.0474	0.0455	0.0585	0.0684	UUBAR
	DFAC	-0.084	-0.050	-0.033	-0.021	-0.025	DFAC
	EFFP	0.8497	0.9102	0.9082	0.8775	0.8653	EFFP
	INCID	-0.0600	-0.2900	0.0800	0.4100	0.7300	INCID
	DEVM	0.477	0.460	7.207	8.463	10.074	DEVM
	P 1	10.099	10.135	10.145	10.144	10.132	P 1
	P 2	10.036	10.102	10.113	10.103	10.087	P 2
	T 1	288.167	288.167	288.167	288.167	288.167	T 1
	T 2	288.167	288.167	288.167	288.167	288.167	T 2
	UUBAR FS						UUBAR FS
	P1 FS						P1 FS
	LOSS PARA FS						LOSS PARA FS
ROTOR	PCT SPAN	90.07	70.43	50.34	30.47	10.16	PCT SPAN
	DIA	0.430	0.462	0.475	0.497	0.520	DIA
ROTOR -L.E.	BETA 2	13.740	14.978	15.656	15.703	15.734	BETA 2
ROTOR -T.E.	BETA 3	60.428	55.329	53.789	54.294	59.797	BETA 3
	BETA(PR) 2	5.705	55.451	57.070	58.771	60.507	BETA(PR) 2
	BETA(PR) 3	4.298	18.876	24.989	30.990	37.561	BETA(PR) 3
	V 2	161.71	165.96	166.74	165.50	163.59	V 2
	V 3	230.04	274.15	264.85	258.36	251.17	V 3
	VZ 2	157.06	160.16	160.07	158.48	156.28	VZ 2
	VZ 3	141.10	155.91	156.31	150.51	126.09	VZ 3
	V-THETA 2	38.43	42.85	44.86	44.55	44.03	V-THETA 2
	V-THETA 3	244.77	225.40	213.48	209.40	216.62	V-THETA 3
	V(PR) 2	271.8	282.5	294.3	306.1	318.1	V(PR) 2
	V(PR) 3	141.0	163.1	172.9	170.3	159.9	V(PR) 3
	VTHETA PR2	-221.9	-232.6	-246.7	-261.4	-276.3	VTHETA PR2
	VTHETA PR3	-10.0	-47.3	-72.8	-90.4	-97.0	VTHETA PR3
	U 2	266.30	275.46	291.53	305.93	320.32	U 2
	U 3	259.31	272.70	286.33	299.80	313.28	U 3
	M 2	0.4863	0.4997	0.5022	0.4983	0.4922	M 2
	M 3	0.8215	0.7893	0.7613	0.7394	0.7113	M 3
	M(PR) 2	0.8175	0.8507	0.8865	0.9217	0.9570	M(PR) 2
	M(PR) 3	0.4806	0.4694	0.4969	0.5045	0.4528	M(PR) 3
	TURN(PR)	50.405	38.561	32.039	27.771	22.972	TURN(PR)
	UUBAR	0.2502	0.1220	0.0707	0.0849	0.1757	UUBAR
	LOSS PARA	0.0896	0.0440	0.0253	0.0301	0.0602	LOSS PARA
	DFAC	0.7501	0.0046	0.0360	0.0434	0.7279	DFAC
	EFFP	0.8435	0.9136	0.9445	0.9323	0.8615	EFFP
	EFF	0.8340	0.9072	0.9404	0.9273	0.8511	EFF
	INCID	0.082	6.722	7.345	7.864	7.016	INCID
	DEVM	14.317	10.881	9.867	10.733	16.084	DEVM
	P 2	10.038	10.104	10.113	10.103	10.087	P 2
	P 3	16.724	16.766	16.811	16.849	16.856	P 3
	T 2	288.167	288.167	288.167	288.167	288.167	T 2
	T 3	342.417	337.639	336.050	337.072	341.067	T 3
STATOR	PCT SPAN	90.02	70.31	50.34	30.11	10.14	PCT SPAN
	DIA	0.429	0.448	0.467	0.487	0.506	DIA
STATOR-L.E.	BETA 3	59.478	54.346	52.654	53.265	58.534	BETA 3
STATOR-T.E.	BETA 4	17.053	10.009	17.184	18.272	24.007	BETA 4
	V 3	288.96	277.55	269.49	262.89	255.97	V 3
	V 4	124.52	198.66	203.23	203.52	204.40	V 4
	VZ 3	140.75	161.97	163.34	157.00	133.41	VZ 3
	VZ 4	121.14	190.90	193.94	192.87	192.03	VZ 4
	V-THETA 3	248.96	225.78	214.05	210.37	218.00	V-THETA 3
	V-THETA 4	55.57	54.77	59.96	63.68	66.35	V-THETA 4
	M 3	0.8311	0.8016	0.7763	0.7538	0.7263	M 3
	M 4	0.3748	0.5598	0.5708	0.5707	0.5697	M 4
	TURN(PR)	42.425	38.320	35.422	34.918	39.449	TURN(PR)
	UUBAR	0.1991	0.1969	0.1312	0.1320	0.1243	UUBAR
	LOSS PARA	0.0691	0.0571	0.0494	0.0514	0.0500	LOSS PARA
	DFAC	0.5676	0.5197	0.4742	0.4583	0.4588	DFAC
	EFFP	0.7162	0.7391	0.7517	0.7285	0.7146	EFFP
	INCID	14.906	12.953	11.717	11.042	12.162	INCID
	DEVM	24.472	16.343	15.525	16.954	17.803	DEVM
	P 3	16.724	16.766	16.811	16.849	16.856	P 3
	P 4	15.311	15.458	16.086	16.152	16.236	P 4
	T 3	342.417	337.639	336.050	337.072	341.067	T 3
	T 4	342.417	337.639	336.050	337.072	341.067	T 4

80545-1

Table C-3. Blade Element Performance (Continued)
Stage G, Rotor G - Stator G
Calculated Using Translated Values
Percent Equivalent Rotor Speed = 19.66 Equivalent Rotor Speed = 11556.00 Equivalent Weight Flow = 15.384 kg/sec
Uniform Inlet
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	89.86	69.09	47.80	27.87	9.29	PCT SPAN
	DIA	0.434	0.466	0.498	0.528	0.555	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	17.355	18.810	19.396	19.461	19.646	BETA 2
	V 1	100.56	106.65	106.77	105.37	102.00	V 1
	V 2	125.69	127.96	127.84	126.28	124.60	V 2
	VZ 1	100.54	106.48	106.33	104.63	100.45	VZ 1
	VZ 2	119.95	120.97	120.20	118.40	115.85	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	37.49	41.71	42.32	41.84	41.38	V-THETA 2
	M 1	0.2981	0.3165	0.3169	0.3127	0.3025	M 1
	M 2	0.3745	0.3815	0.3811	0.3763	0.3653	M 2
	TURN	-17.35	-18.79	-19.33	-19.38	-19.48	TURN
	UUBAR	0.0769	0.0540	0.0437	0.0449	0.0568	UUBAR
	DFAC	-0.100	-0.044	-0.037	-0.036	-0.046	DFAC
	EFFP	0.8840	0.8851	0.8122	0.8105	0.8937	EFFP
	INCID	-0.6600	-0.2900	0.0800	0.4100	0.7300	INCID
	DEVM	6.597	6.604	7.548	8.672	10.089	DEVM
	P 1	10.098	10.148	10.151	10.136	10.120	P 1
	P 2	10.051	10.111	10.121	10.109	10.084	P 2
	T 1	288.167	288.167	288.167	288.167	288.167	T 1
	T 2	288.167	288.167	288.167	288.167	288.167	T 2
	UUBAR FS						UUBAR FS
	P1 FS						P1 FS
	LOSS PARA FS						LOSS PARA FS
ROTOR	PCT SPAN	90.07	70.43	50.34	30.47	10.16	PCT SPAN
	DIA	0.430	0.452	0.475	0.497	0.520	DIA
ROTOR -L.E.	BETA 2	13.676	14.893	15.414	15.569	15.754	BETA 2
ROTOR -T.E.	BETA 3	60.411	55.422	53.936	54.728	60.747	BETA 3
	BETA(PR) 2	55.271	56.050	57.625	59.365	61.167	BETA(PR) 2
	BETA(PR) 3	4.526	17.055	25.093	30.478	37.391	BETA(PR) 3
	V 2	159.51	163.53	164.30	162.92	160.34	V 2
	V 3	286.52	274.49	265.38	260.73	253.12	V 3
	VZ 2	154.97	157.88	157.92	156.10	153.20	VZ 2
	VZ 3	141.47	155.74	156.07	150.29	123.45	VZ 3
	V-THETA 2	37.71	41.99	43.54	43.49	43.23	V-THETA 2
	V-THETA 3	249.15	225.94	214.31	212.47	220.40	V-THETA 3
	V(PR) 2	272.0	282.8	295.2	306.8	318.3	V(PR) 2
	V(PR) 3	141.9	163.0	172.7	175.1	156.2	V(PR) 3
	VTHETA PR2	-223.6	-234.5	-249.1	-263.6	-278.3	VTHETA PR2
	VTHETA PR3	-11.2	-47.8	-73.1	-88.4	-94.4	VTHETA PR3
	U 2	261.27	276.48	292.62	307.07	321.52	U 2
	U 3	260.35	273.72	287.40	300.92	314.75	U 3
	M 2	0.4794	0.4970	0.4945	0.4901	0.4821	M 2
	M 3	0.8224	0.7897	0.7621	0.7451	0.7155	M 3
	M(PR) 2	0.8176	0.8509	0.8884	0.9230	0.9568	M(PR) 2
	M(PR) 3	0.4074	0.4690	0.4960	0.5004	0.4415	M(PR) 3
	TURN(PR)	50.742	38.981	32.511	28.878	23.804	TURN(PR)
	UUBAR	0.2538	0.1277	0.0805	0.0963	0.1903	UUBAR
	LOSS PARA	0.0907	0.0460	0.0288	0.0343	0.0653	LOSS PARA
	DFAC	0.7564	0.6669	0.6404	0.6536	0.7458	DFAC
	EFFP	0.8448	0.9107	0.9380	0.9250	0.8534	EFFP
	EFF	0.8331	0.9041	0.9334	0.9193	0.8423	EFF
	INCID	7.228	7.321	7.951	8.459	7.679	INCID
	DEVM	14.546	11.061	9.970	10.222	16.515	DEVM
	P 2	10.051	10.111	10.121	10.109	10.084	P 2
	P 3	16.808	16.842	16.894	17.023	17.014	P 3
	T 2	288.167	288.167	288.167	288.167	288.167	T 2
	T 3	342.900	338.194	336.833	338.494	343.311	T 3
STATOR	PCT SPAN	90.02	70.31	50.34	30.11	10.14	PCT SPAN
	DIA	0.429	0.448	0.467	0.487	0.506	DIA
STATOR-L.E.	BETA 3	59.457	54.434	52.791	53.657	59.416	BETA 3
STATOR-T.E.	BETA 4	16.219	16.046	17.494	18.834	19.639	BETA 4
	V 3	289.47	278.31	270.05	265.39	258.02	V 3
	V 4	189.23	197.47	202.47	203.94	204.38	V 4
	VZ 3	147.10	161.83	163.16	157.05	131.09	VZ 3
	VZ 4	181.69	189.71	192.90	192.64	191.87	VZ 4
	V-THETA 3	249.30	226.32	214.89	213.46	221.81	V-THETA 3
	V-THETA 4	52.85	54.56	60.80	65.71	68.47	V-THETA 4
	M 3	0.8320	0.8020	0.7771	0.7600	0.7308	M 3
	M 4	0.5236	0.5517	0.5678	0.5707	0.5677	M 4
	TURN(PR)	43.237	38.371	35.250	34.749	39.702	TURN(PR)
	UUBAR	0.2086	0.1727	0.1467	0.1545	0.1499	UUBAR
	LOSS PARA	0.0727	0.0628	0.0552	0.0600	0.0601	LOSS PARA
	DFAC	0.5932	0.5256	0.4781	0.4635	0.4661	DFAC
	EFFP	0.9036	0.7162	0.7257	0.6887	0.6643	EFFP
	INCID	44.065	13.041	11.854	11.434	13.046	INCID
	DEVM	23.638	16.379	15.835	17.515	18.434	DEVM
	P 3	16.808	16.842	16.894	17.023	17.014	P 3
	P 4	15.529	15.837	16.078	16.187	16.251	P 4
	T 3	342.900	338.194	336.833	338.494	343.311	T 3
	T 4	342.900	338.194	336.833	338.494	343.311	T 4

ORIGINAL PAGE IS
OF POOR QUALITY

Table C-3. Blade Element Performance (Continued)
Stage G, Rotor G - Stator G
Calculated Using Translated Values
Percent Equivalent Rotor Speed = 94.96 Equivalent Rotor Speed =11015.0 Equivalent Weight Flow = 17.952 kg/sec
Uniform Inlet
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	89.86	69.09	47.80	27.87	4.29	PCT SPAN
	DIA	0.434	0.466	0.498	0.528	0.555	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	18.211	19.649	20.037	19.965	19.943	BETA 2
	V 1	120.35	125.94	127.53	125.94	120.88	V 1
	V 2	150.40	152.27	152.24	150.53	147.56	V 2
	VZ 1	120.32	125.73	127.00	125.05	119.64	VZ 1
	VZ 2	142.85	143.23	142.57	140.70	137.60	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	47.00	51.14	51.49	51.11	49.93	V-THETA 2
	M 1	0.3582	0.3753	0.3801	0.3753	0.3598	M 1
	M 2	0.4509	0.4567	0.4566	0.4513	0.4420	M 2
	TURN	-18.21	-19.62	-19.47	-19.65	-19.78	TURN
	UUBAR	0.0741	0.0475	0.0434	0.0423	0.0540	UUBAR
	DFAC	-0.093	-0.046	-0.029	-0.029	-0.048	DFAC
	EFFP	0.8896	0.9122	0.9129	0.9154	0.9061	EFFP
	INCID	-0.6600	-0.2900	0.0800	0.4100	0.7300	INCID
	DEVM	5.742	5.765	6.909	8.170	9.793	DEVM
	P 1	10.091	10.144	10.162	10.147	10.111	P 1
	P 2	10.027	10.099	10.120	10.107	10.065	P 2
	T 1	288.167	288.167	288.167	288.167	288.167	T 1
	T 2	288.167	288.167	288.167	288.167	288.167	T 2
	UUBAR FS						UUBAR FS
	P1 FS						P1 FS
	LOSS PARA FS						LOSS PARA FS

ROTOR	PCT SPAN	90.07	70.43	50.34	30.47	10.16	PCT SPAN
	DIA	0.430	0.452	0.475	0.497	0.520	DIA
ROTOR -L.E.	BETA 2	13.965	15.044	15.379	15.433	15.490	BETA 2
ROTOR -T.E.	BETA 3	43.969	40.051	37.165	35.854	37.926	BETA 3
	BETA(PR) 2	46.567	47.471	49.203	51.210	53.462	BETA(PR) 2
	BETA(PR) 3	7.155	15.059	22.685	29.077	34.785	BETA(PR) 3
	V 2	196.74	200.96	202.33	200.76	196.93	V 2
	V 3	316.21	307.23	292.74	277.67	259.31	V 3
	VZ 2	190.95	193.87	194.49	192.48	188.35	VZ 2
	VZ 3	227.58	235.06	232.86	224.25	203.50	VZ 3
	V-THETA 2	47.27	52.11	53.50	53.14	52.20	V-THETA 2
	V-THETA 3	219.53	197.59	176.53	162.06	158.58	V-THETA 3
	V(PR) 2	277.8	287.0	298.1	307.9	317.3	V(PR) 2
	V(PR) 3	229.4	243.6	253.0	257.7	249.2	V(PR) 3
	VTHETA PR2	-201.7	-211.4	-225.3	-239.5	-254.2	VTHETA PR2
	VTHETA PR3	-26.6	-63.2	-97.3	-124.7	-141.4	VTHETA PR3
	U 2	248.97	263.47	278.35	292.01	306.38	U 2
	U 3	248.09	260.83	273.87	286.76	299.94	U 3
	M 2	0.5985	0.6123	0.6108	0.6116	0.5991	M 2
	M 3	0.9412	0.9174	0.8746	0.8270	0.7648	M 3

	M(PR) 2	0.6450	0.6743	0.9087	0.9382	0.9653	M(PR) 2
	M(PR) 3	0.6827	0.7278	0.7558	0.7674	0.7344	M(PR) 3
	TURN(PR)	39.410	32.394	26.464	22.103	18.672	TURN(PR)
	UUBAR	0.2885	0.1563	0.1043	0.1239	0.2163	UUBAR
	LOSS PARA	0.1027	0.0569	0.0380	0.0448	0.0767	LOSS PARA
	DFAC	0.3960	0.3405	0.3116	0.3066	0.3564	DFAC
	EFFP	0.7631	0.8521	0.8622	0.8424	0.7123	EFFP
	EFF	0.7505	0.8443	0.8704	0.8756	0.7017	EFF
	INCID	-1.476	-1.259	-0.478	0.288	-0.057	INCID
	DEVM	17.174	9.066	7.567	8.825	13.416	DEVM
	P 2	10.027	10.099	10.120	10.107	10.065	P 2
	P 3	14.477	14.560	14.184	13.629	13.021	P 3
	T 2	288.167	288.167	288.167	288.167	288.167	T 2
	T 3	330.044	325.778	321.461	318.922	319.522	T 3

STATOR	PCT SPAN	90.02	70.31	50.34	30.11	10.14	PCT SPAN
	DIA	0.429	0.448	0.467	0.487	0.506	DIA
STATOR-L.E.	BETA 3	41.815	38.050	35.783	34.441	37.131	BETA 3
STATOR-T.E.	BETA 4	10.806	15.103	14.712	14.778	14.859	BETA 4
	V 3	329.47	321.29	303.20	285.04	265.32	V 3
	V 4	269.70	274.57	269.30	259.84	247.46	V 4
	VZ 3	245.54	252.87	245.57	233.01	210.78	VZ 3
	VZ 4	258.16	264.98	260.18	250.73	238.40	VZ 4
	V-THETA 3	219.65	197.92	177.00	162.80	159.59	V-THETA 3
	V-THETA 4	77.98	71.51	68.31	66.14	63.25	V-THETA 4
	M 3	0.9862	0.9675	0.9169	0.8521	0.7847	M 3
	M 4	0.7840	0.8087	0.7952	0.7674	0.7262	M 4
	TURN(PR)	25.005	22.930	21.022	20.085	22.164	TURN(PR)
	UUBAR	0.1090	0.0762	0.0633	0.0600	0.0810	UUBAR
	LOSS PARA	0.0379	0.0279	0.0241	0.0238	0.0333	LOSS PARA
	DFAC	0.3380	0.2957	0.2554	0.2303	0.2257	DFAL
	EFFP	0.7623	0.7988	0.7789	0.7299	0.5067	EFFP
	INCID	-2.676	-3.343	-5.153	-7.279	-9.253	INCID
	DEVM	24.227	15.437	13.055	13.466	13.668	DEVM
	P 3	14.477	14.560	14.184	13.629	13.021	P 3
	P 4	13.744	14.059	13.611	13.321	12.669	P 4
	T 3	330.044	325.778	321.461	318.922	319.522	T 3
	T 4	330.044	325.778	321.461	318.922	319.522	T 4

Table C-3. Blade Element Performance (Continued)
Stage G, Rotor G - Stator G
Calculated Using Translated Values
Percent Equivalent Rotor Speed = 95.28 Equivalent Rotor Speed =11049.00 Equivalent Weight Flow = 17.793 kg/sec
Uniform Inlet
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	89.86	69.09	47.80	27.87	6.29	PCT SPAN
	DIA	0.434	0.466	0.498	0.528	0.555	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	17.782	19.093	19.583	18.647	14.812	BETA 2
	V 1	119.32	123.71	125.01	124.60	121.29	V 1
	V 2	148.14	150.15	150.22	148.59	145.60	V 2
	VZ 1	119.30	123.51	124.49	123.72	120.03	VZ 1
	VZ 2	141.08	141.72	141.08	139.11	135.88	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	45.11	49.06	48.16	49.66	48.55	V-THETA 2
	M 1	0.3550	0.3684	0.3724	0.3712	0.3610	M 1
	M 2	0.4438	0.4501	0.4503	0.4480	0.4356	M 2
	TURN	-17.73	-19.07	-19.52	-19.53	-19.65	TURN
	UUBAR	0.0927	0.0538	0.0459	0.0568	0.0847	UUBAR
	DFAC	-0.089	-0.054	-0.039	-0.029	-0.031	DFAC
	EFFP	0.8610	0.9036	0.9118	0.8876	0.8468	EFFP
	INCID	-0.6600	-0.2900	0.0800	0.4100	0.7300	INCID
	DEVM	6.220	6.322	7.361	8.487	9.424	DEVM
	P 1	10.093	10.136	10.161	10.147	10.123	P 1
	P 2	10.015	10.087	10.108	10.095	10.053	P 2
	T 1	288.167	288.167	288.167	288.167	288.167	T 1
	T 2	288.167	288.167	288.167	288.167	288.167	T 2
	UUBAR FS						UUBAR FS
	P1 FS						P1 FS
	LOSS PARA FS						LOSS PARA FS
ROTOR	PCT SPAN	90.07	70.43	50.34	30.47	10.16	PCT SPAN
	DIA	0.430	0.452	0.475	0.497	0.520	DIA
ROTOR -L.E.	BETA 2	13.593	14.677	15.092	15.245	15.443	BETA 2
ROTOR -T.E.	BETA 3	47.891	43.508	41.694	40.906	44.287	BETA 3
	BETA(PR) 2	47.447	48.326	49.991	51.944	54.136	BETA(PR) 2
	BETA(PR) 3	5.769	15.175	22.348	28.500	34.609	BETA(PR) 3
	V 2	193.10	197.46	198.94	197.40	193.64	V 2
	V 3	307.47	295.80	283.11	270.46	253.48	V 3
	VZ 2	187.67	190.83	191.50	189.43	185.24	VZ 2
	VZ 3	206.17	214.43	211.07	204.15	180.69	VZ 3
	V-THETA 2	45.38	49.98	51.64	51.63	51.17	V-THETA 2
	V-THETA 3	228.10	203.55	188.01	176.88	176.25	V-THETA 3
	V(PR) 2	277.5	287.1	298.5	308.0	317.1	V(PR) 2
	V(PR) 3	207.2	227.4	228.8	233.3	220.8	V(PR) 3
	VTHETA PR2	-204.4	-214.4	-228.1	-242.0	-256.2	VTHETA PR2
	VTHETA PR3	-20.8	-58.2	-86.8	-110.8	-124.7	VTHETA PR3
	U 2	249.81	264.35	279.78	293.60	307.41	U 2
	U 3	248.93	261.71	274.79	287.72	300.94	U 3
	M 2	0.5866	0.6008	0.6057	0.6006	0.5884	M 2
	M 3	0.9064	0.8749	0.8361	0.7976	0.7394	M 3
	M(PR) 2	0.8431	0.8737	0.9081	0.9371	0.9635	M(PR) 2
	M(PR) 3	0.6109	0.6577	0.6776	0.6867	0.6431	M(PR) 3
	TURN(PR)	41.676	33.134	27.608	23.414	19.523	TURN(PR)
	UUBAR	0.2260	0.1013	0.0620	0.0713	0.1746	UUBAR
	LOSS PARA	0.0807	0.0368	0.0227	0.0259	0.0620	LOSS PARA
	DFAC	0.4888	0.4255	0.4100	0.4076	0.4708	DFAC
	EFFP	0.8275	0.9102	0.9373	0.9227	0.8050	EFFP
	EFF	0.8170	0.9048	0.9337	0.9185	0.7954	EFF
	INCID	-0.596	-0.405	0.309	1.023	0.624	INCID
	DEVM	15.789	9.182	7.231	8.249	13.740	DEVM
	P 2	10.015	10.087	10.108	10.095	10.053	P 2
	P 3	15.277	15.242	15.032	14.695	14.136	P 3
	T 2	288.167	288.167	288.167	288.167	288.167	T 2
	T 3	333.394	328.033	325.222	323.694	325.222	T 3
STATOR	PCT SPAN	0.02	70.31	50.34	30.11	10.14	PCT SPAN
	DIA	0.429	0.448	0.467	0.487	0.508	DIA
STATOR-L.E.	BETA 3	56.617	42.344	40.537	40.019	43.429	BETA 3
STATOR-T.E.	BETA 4	-4.120	13.232	14.760	15.738	15.163	BETA 4
	V 3	314.04	302.84	290.46	277.00	258.79	V 3
	V 4	230.59	232.78	226.96	216.14	201.48	V 4
	VZ 3	215.70	223.73	220.44	211.62	187.40	VZ 3
	VZ 4	223.61	226.51	219.22	207.61	193.82	VZ 4
	V-THETA 3	228.23	203.89	188.52	177.37	177.37	V-THETA 3
	V-THETA 4	56.25	53.26	57.75	58.51	52.53	V-THETA 4
	M 3	0.9291	0.8980	0.8610	0.8178	0.7556	M 3
	M 4	0.6566	0.6692	0.6541	0.6220	0.5755	M 4
	TURN(PR)	32.495	29.093	25.726	24.199	28.155	TURN(PR)
	UUBAR	0.0482	0.0324	0.0274	0.0562	0.0659	UUBAR
	LOSS PARA	0.0170	0.0119	0.0142	0.0222	0.0271	LOSS PARA
	DFAC	0.4650	0.4210	0.3985	0.3992	0.4309	DFAC
	EFFP	0.9224	0.9406	0.9265	0.8870	0.8637	EFFP
	INCID	2.125	0.950	-0.401	-2.207	-2.963	INCID
	DEVM	21.540	13.567	13.103	14.425	13.971	DEVM
	P 3	15.277	15.242	15.032	14.695	14.136	P 3
	P 4	14.963	15.040	14.817	14.401	13.842	P 4
	T 3	333.394	328.033	325.222	323.694	325.222	T 3
	T 4	333.394	328.033	325.222	323.694	325.222	T 4

Table C-3. Blade Element Performance (Continued)
Stage G, Rotor G - Stator G
Calculated Using Translated Values
Percent Equivalent Rotor Speed = 95.23 Equivalent Rotor Speed = 11043.00 Equivalent Weight Flow = 17.525 kg/sec
Uniform Inlet
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	89.86	69.09	47.80	27.87	9.29	PCT SPAN
	DIA	0.434	0.466	0.498	0.528	0.555	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	17.707	18.855	19.455	19.595	19.797	BETA 2
	V 1	118.71	122.41	122.70	121.78	117.91	V 1
	V 2	145.12	147.19	147.06	145.45	142.71	V 2
	VZ 1	118.69	122.21	122.20	120.92	116.69	VZ 1
	VZ 2	138.22	139.12	138.22	136.27	133.20	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	44.13	47.51	48.83	48.51	47.95	V-THETA 2
	M 1	0.3532	0.3645	0.3654	0.3625	0.3507	M 1
	M 2	0.4344	0.4409	0.4405	0.4355	0.4270	M 2
	TURN	-17.70	-18.83	-19.34	-19.48	-19.63	TURN
	UUBAR	0.0876	0.0423	0.0296	0.0348	0.0507	UUBAR
	DFAC	-0.073	-0.046	-0.038	-0.031	-0.040	DFAC
	EFFP	0.8567	0.9191	0.9401	0.9287	0.9067	EFFP
	INCID	-0.6600	-0.2900	0.0800	0.4100	0.7300	INCID
	DFVM	6.246	6.559	7.489	8.536	9.938	DFVM
	P 1	10.108	10.144	10.149	10.140	10.115	P 1
	P 2	10.035	10.106	10.122	10.110	10.073	P 2
	T 1	288.167	288.167	288.167	288.167	288.167	T 1
	T 2	288.167	288.167	288.167	288.167	288.167	T 2
	UUBAR FS						UUBAR FS
	P1 FS						P1 FS
	LOSS PARA FS						LOSS PARA FS
ROTOR	PCT SPAN	90.07	70.43	50.34	30.47	10.16	PCT SPAN
	DIA	0.430	0.462	0.494	0.497	0.520	DIA
ROTOR -L.E.	BETA 2	13.638	14.567	15.074	15.286	15.506	BETA 2
ROTOR -T.E.	BETA 3	51.441	46.536	44.693	44.520	44.818	BETA 3
	BETA(PR) 2	48.291	40.200	50.886	52.791	54.406	BETA(PR) 2
	BETA(PR) 3	6.581	16.605	24.110	25.344	38.444	BETA(PR) 3
	V 2	188.29	192.66	193.75	192.31	188.92	V 2
	V 3	291.37	279.91	269.26	261.67	247.15	V 3
	VZ 2	182.96	186.28	186.52	184.51	180.67	VZ 2
	VZ 3	181.61	192.47	191.14	188.06	182.16	VZ 3
	V-THETA 2	44.39	48.41	50.24	50.43	50.12	V-THETA 2
	V-THETA 3	227.84	203.07	189.10	182.97	165.35	V-THETA 3
	V(PR) 2	275.0	285.2	296.0	305.5	315.1	V(PR) 2
	V(PR) 3	182.8	201.3	209.9	214.3	200.1	V(PR) 3
	VTHETA PR2	-205.3	-215.8	-224.4	-243.0	-257.1	VTHETA PR2
	VTHETA PR3	-21.0	-58.5	-85.1	-104.6	-115.4	VTHETA PR3
	U 2	249.67	264.21	279.63	293.44	307.24	U 2
	U 3	248.79	261.17	274.64	287.56	300.78	U 3
	M 2	0.5711	0.5852	0.5988	0.6941	0.5731	M 2
	M 3	0.8516	0.8209	0.7890	0.7643	0.7144	M 3
	M(PR) 2	0.8340	0.8664	0.8998	0.9287	0.9559	M(PR) 2
	M(PR) 3	0.5344	0.5908	0.6150	0.6260	0.5785	M(PR) 3
	TURN(PR)	41.707	32.278	26.747	23.421	19.463	TURN(PR)
	UUBAR	0.2110	0.0826	0.0368	0.0407	0.1438	UUBAR
	LOSS PARA	0.0752	0.0298	0.0125	0.0147	0.0506	LOSS PARA
	DFAC	0.4738	0.4989	0.4734	0.4761	0.5467	DFAC
	EFFP	0.8427	0.9283	0.9650	0.9588	0.8536	EFFP
	EFF	0.8330	0.9239	0.9629	0.9563	0.8454	EFF
	INCID	0.248	0.469	1.706	1.872	1.356	INCID
	DEVM	16.600	10.911	8.985	8.061	14.473	DEVM
	P 2	10.035	10.106	10.122	10.110	10.073	P 2
	P 3	15.448	15.438	14.242	13.262	14.866	P 3
	T 2	288.167	288.167	288.167	288.167	288.167	T 2
	T 3	333.544	328.305	325.928	325.784	328.261	T 3
STATOR	PCT SPAN	90.02	70.31	50.34	30.11	10.14	PCT SPAN
	DIA	0.429	0.448	0.467	0.487	0.506	DIA
STATOR-L.E.	BETA 3	50.614	45.679	43.744	43.683	47.926	BETA 3
STATOR-T.E.	BETA 4	13.861	13.284	15.027	16.454	16.396	BETA 4
	V 3	294.47	284.44	274.57	266.71	251.93	V 3
	V 4	214.40	218.13	214.73	208.27	196.70	V 4
	VZ 3	187.17	198.67	198.11	192.46	180.34	VZ 3
	VZ 4	208.14	212.21	207.16	196.33	186.46	VZ 4
	V-THETA 3	227.97	203.41	189.61	183.81	166.54	V-THETA 3
	V-THETA 4	51.36	50.10	55.61	58.87	55.90	V-THETA 4
	M 3	0.8637	0.8360	0.8068	0.7807	0.7296	M 3
	M 4	0.6068	0.6235	0.6154	0.5987	0.5642	M 4
	TURN(PR)	36.751	32.376	28.665	27.146	31.428	TURN(PR)
	UUBAR	0.0615	0.0362	0.0307	0.0698	0.0687	UUBAR
	LOSS PARA	0.0217	0.0134	0.0151	0.0274	0.0281	LOSS PARA
	DFAC	0.4910	0.4385	0.4128	0.4144	0.4364	DFAC
	EFFP	0.8493	0.9316	0.9194	0.8986	0.8501	EFFP
	INCID	6.121	4.265	2.805	1.458	1.458	INCID
	DEVM	21.280	13.618	13.270	15.139	15.208	DEVM
	P 3	15.448	15.438	14.242	13.262	14.866	P 3
	P 4	15.082	15.232	15.131	14.910	14.562	P 4
	T 3	333.544	328.305	325.928	325.784	328.261	T 3
	T 4	333.544	328.305	325.928	325.784	328.261	T 4

Table C-3. Blade Element Performance (Continued)
Stage G, Rotor G - Stator G
Calculated Using Translated Values
Percent Equivalent Rotor Speed = 85.27 Equivalent Rotor Speed =11048.00 Equivalent Weight Flow = 16.907 kg/sec
Uniform Inlet
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	89.86	69.09	47.80	27.87	6.29	PCT SPAN
	DIA	0.434	0.466	0.498	0.528	0.555	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	17.438	18.769	19.194	19.458	19.761	BETA 2
	V 1	113.21	117.77	118.43	116.99	113.07	V 1
	V 2	138.95	141.08	141.29	139.72	136.96	V 2
	VZ 1	113.18	117.58	117.94	116.17	111.90	VZ 1
	VZ 2	132.54	133.42	133.01	131.01	127.86	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	41.63	45.34	46.30	46.28	45.93	V-THETA 2
	M 1	0.3364	0.3503	0.3523	0.3479	0.3360	M 1
	M 2	0.4153	0.4219	0.4225	0.4177	0.4092	M 2
	TURN	-17.44	-18.75	-19.13	-19.35	-19.60	TURN
	UUBAR	0.0825	0.0457	0.0301	0.0208	0.0477	UUBAR
	DFAC	-0.079	-0.043	-0.035	-0.032	-0.041	DFAC
	EFFP	0.8662	0.9099	0.9371	0.9360	0.9117	EFFP
	INCID	-0.6600	-0.2900	0.0800	0.4100	0.7300	INCID
	DEVM	6.515	6.645	7.750	8.674	9.675	DEVM
	P 1	10.103	10.144	10.153	10.140	10.115	P 1
	P 2	10.040	10.107	10.128	10.115	10.079	P 2
	T 1	288.167	288.167	288.167	288.167	288.167	T 1
	T 2	288.167	288.167	288.167	288.167	288.167	T 2
	UUBAR FS						UUBAR FS
	P1 FS						P1 FS
	LOSS PARA FS						LOSS PARA FS
ROTOR	PCT SPAN	90.07	70.43	50.34	30.47	10.16	PCT SPAN
	DIA	0.430	0.452	0.475	0.497	0.520	DIA
ROTOR -L.E.	BETA 2	13.543	14.633	15.008	15.314	15.467	BETA 2
ROTOR -T.E.	BETA 3	55.175	49.106	47.351	47.264	51.670	BETA 3
	BETA(PR) 2	50.097	50.955	52.564	54.403	56.463	BETA(PR) 2
	BETA(PR) 3	5.854	17.189	23.948	29.500	35.958	BETA(PR) 3
	V 2	178.84	183.04	184.53	183.16	179.84	V 2
	V 3	283.03	273.14	265.45	257.88	245.87	V 3
	VZ 2	173.85	176.93	177.70	175.71	171.91	VZ 2
	VZ 3	161.63	178.74	179.61	174.56	152.00	VZ 3
	V-THETA 2	41.88	46.20	47.64	48.11	48.02	V-THETA 2
	V-THETA 3	232.33	206.39	194.99	188.93	192.26	V-THETA 3
	V(PR) 2	271.0	281.0	292.7	302.5	311.9	V(PR) 2
	V(PR) 3	162.5	187.3	197.0	201.4	187.9	V(PR) 3
	VTHETA PR2	-207.9	-218.1	-232.1	-245.5	-259.4	VTHETA PR2
	VTHETA PR3	-16.6	-55.3	-79.8	-98.8	-108.7	VTHETA PR3
	U 2	249.78	264.33	279.76	293.57	307.38	U 2
	U 3	248.90	261.69	274.76	287.69	300.62	U 3
	M 2	0.5407	0.5542	0.5589	0.5545	0.5439	M 2
	M 3	0.8215	0.7964	0.7733	0.7488	0.7070	M 3
	M(PR) 2	0.8194	0.8507	0.8865	0.9157	0.9434	M(PR) 2
	M(PR) 3	0.4716	0.5460	0.5739	0.5848	0.5402	M(PR) 3
	TURN(PR)	44.241	33.750	28.587	24.879	20.912	TURN(PR)
	UUBAR	0.2387	0.0811	0.0315	0.0350	0.1277	UUBAR
	LOSS PARA	0.0851	0.0292	0.0114	0.0126	0.0448	LOSS PARA
	DFAC	0.6519	0.5468	0.5230	0.5234	0.5439	DFAC
	EFFP	0.8324	0.9327	0.9701	0.9666	0.8805	EFFP
	EFF	0.8217	0.9284	0.9682	0.9644	0.8731	EFF
	INCID	2.054	2.225	2.885	3.486	2.958	INCID
	DEVM	15.873	11.195	8.827	9.247	14.686	DEVM
	P 2	10.040	10.107	10.128	10.115	10.079	P 2
	P 3	15.609	15.704	15.768	15.711	15.449	P 3
	T 2	288.167	288.167	288.167	288.167	288.167	T 2
	T 3	335.283	329.816	328.300	328.228	331.005	T 3
STATOR	PCT SPAN	90.02	70.31	50.34	30.11	10.14	PCT SPAN
	DIA	0.429	0.448	0.467	0.487	0.506	DIA
STATOR-L.E.	BETA 3	54.396	48.288	46.390	46.414	50.724	BETA 3
STATOR-T.E.	BETA 4	14.557	13.490	15.742	17.182	16.561	BETA 4
	V 3	285.93	277.05	270.34	262.55	250.51	V 3
	V 4	196.35	202.01	202.25	197.79	192.23	V 4
	VZ 3	166.46	184.27	186.25	180.66	158.24	VZ 3
	VZ 4	190.04	196.36	194.45	188.58	183.64	VZ 4
	V-THETA 3	232.47	206.74	195.51	189.80	193.49	V-THETA 3
	V-THETA 4	49.35	47.11	54.81	58.31	54.61	V-THETA 4
	M 3	0.8310	0.8093	0.7893	0.7639	0.7218	M 3
	M 4	0.5509	0.5728	0.5749	0.5615	0.5423	M 4
	TURN(PR)	39.837	34.779	30.597	29.150	34.063	TURN(PR)
	UUBAR	0.0819	0.0622	0.0686	0.0869	0.0781	UUBAR
	LOSS PARA	0.0288	0.0229	0.0260	0.0340	0.0319	LOSS PARA
	DFAC	0.5463	0.4904	0.4597	0.4554	0.4732	DFAC
	EFFP	0.8772	0.8943	0.8750	0.8361	0.8422	EFFP
	INCID	9.904	6.894	5.451	4.186	4.337	INCID
	DEVM	21.977	13.825	14.084	15.866	15.365	DEVM
	P 3	15.609	15.704	15.768	15.711	15.449	P 3
	P 4	15.143	15.362	15.404	15.274	15.095	P 4
	T 3	335.283	329.816	328.300	328.228	331.005	T 3
	T 4	335.283	329.816	328.300	328.228	331.005	T 4

ORIGINAL PAGE IS
OF POOR QUALITY

C.3

Table C-3. Blade Element Performance (Continued)
Stage G, Rotor G - Stator G
Calculated Using Translated Values
Percent Equivalent Rotor Speed = 95.25 Equivalent Rotor Speed = 11045.00 Equivalent Weight Flow = 16.347 kg/sec
Uniform Inlet
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	89.86	69.09	47.80	27.87	9.29	PCT SPAN
	DIA	0.434	0.466	0.498	0.528	0.555	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	17.511	18.948	19.249	19.414	19.705	BETA 2
	V 1	108.53	113.64	114.37	112.82	108.25	V 1
	V 2	133.13	135.29	135.40	133.91	131.09	V 2
	VZ 1	108.51	113.45	113.90	112.03	107.14	VZ 1
	VZ 2	126.94	127.80	127.42	125.60	122.42	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	40.05	43.88	44.50	44.26	43.84	V-THETA 2
	M 1	0.3222	0.3377	0.3399	0.3353	0.3214	M 1
	M 2	0.3973	0.4040	0.4043	0.3998	0.3911	M 2
	TURN	-17.51	-18.92	-19.19	-19.30	-19.54	TURN
	UUBAR	0.0824	0.0542	0.0454	0.0449	0.0588	UUBAR
	DFAC	-0.078	-0.035	-0.027	-0.026	-0.041	DFAC
	EFFP	0.8654	0.890	0.9031	0.9056	0.8928	EFFP
	INCID	-0.6600	-0.2900	0.0800	0.4100	0.7300	INCID
	DEVM	6.442	6.466	7.695	8.718	10.030	DEVM
	P 1	10.101	10.146	10.155	10.142	10.112	P 1
	P 2	10.043	10.104	10.119	10.108	10.071	P 2
	T 1	288.167	288.167	288.167	288.167	288.167	T 1
	T 2	288.167	288.167	288.167	288.167	288.167	T 2
	UUBAR FS						UUBAR FS
	P1 FS						P1 FS
	LOSS PARA FS						LOSS PARA FS
ROTOR	PCT SPAN	90.07	70.43	50.34	30.47	10.16	PCT SPAN
	DIA	0.430	0.452	0.475	0.497	0.520	DIA
ROTOR -L.E.	BETA 2	13.692	14.879	15.168	15.397	15.682	BETA 2
ROTOR -T.E.	BETA 3	59.365	52.560	50.337	49.744	54.819	BETA 3
	BETA(PR) 2	51.706	52.534	54.170	55.973	58.018	BETA(PR) 2
	BETA(PR) 3	4.880	16.757	23.981	30.021	36.691	BETA(PR) 3
	V 2	170.22	174.27	175.50	174.25	170.87	V 2
	V 3	275.29	267.85	260.98	253.63	241.96	V 3
	VZ 2	165.36	168.26	168.88	167.09	163.27	VZ 2
	VZ 3	140.27	162.78	166.39	163.53	139.04	VZ 3
	V-THETA 2	40.29	44.71	45.78	46.01	45.84	V-THETA 2
	V-THETA 3	236.86	212.60	200.68	193.12	197.24	V-THETA 3
	V(PR) 2	266.9	276.7	288.8	299.1	304.0	V(PR) 2
	V(PR) 3	140.8	170.1	182.5	189.6	174.3	V(PR) 3
	VTHETA PR2	-209.4	-219.6	-233.9	-247.5	-261.5	VTHETA PR2
	VTHETA PR3	-12.0	-49.0	-74.0	-94.5	-103.6	VTHETA PR3
	U 2	249.72	264.26	279.68	293.49	307.30	U 2
	U 3	248.84	261.61	274.69	287.61	300.83	U 3
	M 2	0.5132	0.5261	0.5300	0.5260	0.5152	M 2
	M 3	0.7941	0.7764	0.7561	0.7329	0.6923	M 3
	M(PR) 2	0.8046	0.8354	0.8722	0.9031	0.9317	M(PR) 2
	M(PR) 3	0.4061	0.4932	0.5288	0.5480	0.4987	M(PR) 3
	TURN(PR)	46.824	35.762	30.162	25.934	21.341	TURN(PR)
	UUBAR	0.2776	0.1052	0.0433	0.0338	0.1307	UUBAR
	LOSS PARA	0.0992	0.0380	0.0156	0.0121	0.0447	LOSS PARA
	DFAC	0.7359	0.6121	0.5769	0.5661	0.5428	DFAC
	EFFP	0.8144	0.9172	0.9619	0.9695	0.9561	EFFP
	EFF	0.8024	0.9118	0.9593	0.9675	0.9776	EFF
	INCID	3.663	3.805	4.492	5.060	4.517	INCID
	DEVM	14.899	10.762	8.860	9.766	15.816	DEVM
	P 2	10.043	10.104	10.119	10.108	10.071	P 2
	P 3	15.664	15.900	16.032	16.016	15.784	P 3
	T 2	288.167	288.167	288.167	288.167	288.167	T 2
	T 3	336.800	331.878	330.372	330.033	333.150	T 3
STATOR	PCT SPAN	90.02	70.31	50.34	30.11	10.14	PCT SPAN
	DIA	0.429	0.448	0.467	0.487	0.506	DIA
STATOR-L.E.	BETA 3	58.570	51.723	49.352	48.886	51.833	BETA 3
STATOR-T.E.	BETA 4	16.515	14.769	15.679	17.382	21.415	BETA 4
	V 3	277.76	271.37	265.47	257.98	246.47	V 3
	V 4	185.20	194.87	195.93	192.44	188.83	V 4
	VZ 3	144.84	168.05	172.75	169.34	145.10	VZ 3
	VZ 4	177.55	188.36	188.43	183.28	174.58	VZ 4
	V-THETA 3	237.00	212.96	201.21	194.01	148.50	V-THETA 3
	V-THETA 4	52.64	49.66	52.88	57.37	56.32	V-THETA 4
	M 3	0.8021	0.7879	0.7708	0.7469	0.7061	M 3
	M 4	0.5167	0.5495	0.5540	0.5438	0.5304	M 4
	TURN(PR)	42.053	36.936	33.623	31.422	36.325	TURN(PR)
	UUBAR	0.0948	0.0745	0.0886	0.1074	0.0899	UUBAR
	LOSS PARA	0.0330	0.0272	0.0336	0.0420	0.0365	LOSS PARA
	DFAC	0.5747	0.5112	0.4849	0.4747	0.4838	DFAC
	EFFP	0.8623	0.8760	0.8416	0.8001	0.8174	EFFP
	INCID	14.078	10.329	8.414	6.659	7.451	INCID
	DEVM	23.934	15.103	14.021	16.047	17.216	DEVM
	P 3	15.664	15.900	16.032	16.016	15.784	P 3
	P 4	15.152	15.502	15.571	15.486	15.383	P 4
	T 3	336.800	331.878	330.372	330.033	333.150	T 3
	T 4	336.800	331.878	330.372	330.033	333.150	T 4

Table C-3. Blade Element Performance (Continued)
Stage G, Rotor G - Stator G
Calculated Using Translated Values
Percent Equivalent Rotor Speed = 95.06 Equivalent Rotor Speed =11023.00 Equivalent Weight Flow = 15.765 kg/sec
Uniform Inlet
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	99.86	69.09	47.80	27.87	9.29	PCT SPAN
	DIA	0.434	0.466	0.498	0.528	0.555	DIA
I.G.V.-Lead.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-Trail.	BETA 2	17.141	18.700	19.176	19.145	19.460	BETA 2
	V 1	103.90	109.26	110.08	108.41	103.85	V 1
	V 2	127.03	129.74	129.69	128.34	125.79	V 2
	VZ 1	103.88	109.09	109.62	107.64	102.78	VZ 1
	VZ 2	121.37	122.74	122.10	120.57	117.65	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	37.43	41.54	42.46	41.86	41.57	V-THETA 2
	M 1	0.3082	0.3245	0.3269	0.3219	0.3081	M 1
	M 2	0.3786	0.3869	0.3866	0.3826	0.3748	M 2
	TURN	-17.14	-18.68	-19.11	-19.03	-19.30	TURN
	UUBAR	0.0472	0.0538	0.0480	0.0406	0.0475	UUBAR
	DFAC	-0.078	-0.034	-0.022	-0.026	-0.044	DFAC
	EFFP	0.8417	0.8892	0.8946	0.9121	0.9113	EFFP
	INCID	-0.8600	-0.2400	0.0800	0.4100	0.7300	INCID
	DEVM	6.812	6.714	7.767	8.986	10.273	DEVM
	P 1	10.101	10.146	10.155	10.141	10.112	P 1
	P 2	10.038	10.108	10.120	10.112	10.081	P 2
	T 1	288.167	288.167	288.167	288.167	288.167	T 1
	T 2	288.167	288.167	288.167	288.167	288.167	T 2
	UUBAR FS						UUBAR FS
	P1 FS						P1 FS
	LOSS PARA FS						LOSS PARA FS
ROTOR	PCT SPAN	90.07	70.43	50.34	30.47	10.16	PCT SPAN
	DIA	0.430	0.452	0.475	0.497	0.520	DIA
ROTOR -Lead.	BETA 2	13.491	14.779	15.212	15.285	15.583	BETA 2
ROTOR -Trail.	BETA 3	58.907	53.524	51.842	51.457	50.752	BETA 3
	BETA(PR) 2	53.451	54.069	55.689	57.446	59.376	BETA(PR) 2
	BETA(PR) 3	4.988	17.001	25.219	31.044	37.411	BETA(PR) 3
	V 2	161.42	166.11	167.01	165.94	163.00	V 2
	V 3	275.51	264.92	254.75	248.56	239.70	V 3
	VZ 2	156.95	160.45	160.67	159.22	155.82	VZ 2
	VZ 3	146.28	157.44	157.22	154.41	131.09	VZ 3
	V-THETA 2	37.65	42.33	43.69	43.51	43.46	V-THETA 2
	V-THETA 3	232.92	212.96	200.09	194.10	199.97	V-THETA 3
	V(PR) 2	263.4	273.5	285.3	290.4	306.5	V(PR) 2
	V(PR) 3	142.6	104.8	174.2	181.0	165.9	V(PR) 3
	VTHETA PR2	-211.6	-221.4	-235.4	-249.4	-263.2	VTHETA PR2
	VTHETA PR3	-17.4	-48.1	-74.0	-92.9	-100.3	VTHETA PR3
	U 2	249.22	263.73	274.12	292.91	306.69	U 2
	U 3	246.34	261.09	274.44	287.04	300.24	U 3
	M 2	0.4854	0.5002	0.5030	0.4997	0.4904	M 2
	M 3	0.7944	0.7002	0.7357	0.7156	0.6035	M 3
	M(PR) 2	0.7922	0.8237	0.8594	0.8924	0.9222	M(PR) 2
	M(PR) 3	0.4118	0.4760	0.5030	0.5210	0.4731	M(PR) 3
	TURN(PR)	48.441	37.054	30.446	26.389	21.986	TURN(PR)
	UUBAR	0.2380	0.1015	0.0567	0.0746	0.1457	UUBAR
	LOSS PARA	0.0850	0.0366	0.0203	0.0493	0.0500	LOSS PARA
	DFAC	0.7271	0.6310	0.6031	0.6962	0.6756	DFAC
	EFFP	0.8408	0.9245	0.9527	0.9433	0.8770	EFFP
	EFF	0.8365	0.9144	0.9496	0.9501	0.8688	EFF
	INCID	5.388	5.340	6.013	6.535	5.881	INCID
	DEVM	15.067	11.006	10.096	10.786	16.535	DEVM
	P 2	10.038	10.108	10.120	10.112	10.081	P 2
	P 3	15.983	16.049	16.012	16.046	15.946	P 3
	T 2	288.167	288.167	288.167	288.167	288.167	T 2
	T 3	337.128	332.428	330.672	330.933	334.600	T 3
STATOR	PCT SPAN	90.02	70.31	50.34	30.11	10.14	PCT SPAN
	DIA	0.429	0.448	0.467	0.487	0.506	DIA
STATOR-Lead.	BETA 3	56.125	52.696	50.890	50.651	55.737	BETA 3
STATOR-Trail.	BETA 4	17.058	15.340	16.538	18.063	17.719	BETA 4
	V 3	277.99	268.26	256.82	252.58	243.93	V 3
	V 4	181.16	192.73	193.36	191.42	189.73	V 4
	VZ 3	146.79	162.52	163.11	159.88	137.09	VZ 3
	VZ 4	172.61	185.76	185.15	181.62	180.14	VZ 4
	V-THETA 3	236.06	213.32	200.63	195.00	201.24	V-THETA 3
	V-THETA 4	54.95	50.98	54.98	59.23	57.55	V-THETA 4
	M 3	0.8024	0.7770	0.7487	0.7284	0.6968	M 3
	M 4	0.5045	0.5426	0.5460	0.5400	0.5319	M 4
	TURN(PR)	40.466	37.333	34.303	32.510	37.930	TURN(PR)
	UUBAR	0.1618	0.1036	0.0906	0.1071	0.0998	UUBAR
	LOSS PARA	0.0500	0.0378	0.0343	0.0418	0.0405	LOSS PARA
	DFAC	0.5894	0.5122	0.4776	0.4661	0.4778	DFAC
	EFFP	0.7699	0.8256	0.8313	0.7906	0.7871	EFFP
	INCID	13.633	11.303	9.952	8.426	9.359	INCID
	DEVM	25.077	15.680	14.880	16.746	16.519	DEVM
	P 3	15.983	16.049	16.012	16.046	15.946	P 3
	P 4	15.089	15.502	15.561	15.535	15.505	P 4
	T 3	337.128	332.428	330.672	330.933	334.600	T 3
	T 4	337.128	332.428	330.672	330.933	334.600	T 4

ORIGINAL PAGE IS OF POOR QUALITY

Table C-3. Blade Element Performance (Continued)
Stage G, Rotor G - Stator G
Calculated Us & Translated Values
Percent Equivalent Rotor Speed = 95.03 Equivalent Rotor Speed =11020.00 Equivalent Weight Flow = 15.376 kg/sec
Uniform Inlet
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	89.66	69.09	47.80	27.87	9.29	PCT SPAN
	DIA	0.434	0.466	0.498	0.528	0.555	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	17.359	18.879	19.191	19.368	19.650	BETA 2
	V 1	102.46	105.45	106.09	104.84	102.00	V 1
	V 2	124.34	126.69	126.94	125.48	122.64	V 2
	VZ 1	102.44	105.28	105.65	104.10	100.94	VZ 1
	VZ 2	118.66	119.73	119.41	117.72	114.57	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	37.09	40.94	41.56	41.38	40.91	V-THETA 2
	M 1	0.3038	0.3129	0.3148	0.3111	0.3025	M 1
	M 2	0.3704	0.3776	0.3780	0.3738	0.3652	M 2
	TURN	-17.36	-18.86	-19.13	-19.26	-19.49	TURN
	UUBAR	0.0907	0.0408	0.0279	0.0243	0.0581	UUBAR
	DFAC	-0.068	-0.045	-0.037	-0.035	-0.034	DFAC
	EFFP	0.8332	0.9193	0.9416	0.9489	0.8889	EFFP
	INCID	-0.6600	-0.2900	0.0800	0.4100	0.7300	INCID
	DEVM	6.594	6.935	7.753	8.764	10.084	DEVM
	P 1	10.113	10.139	10.147	10.136	10.121	P 1
	P 2	10.051	10.112	10.126	10.120	10.085	P 2
	T 1	288.167	288.167	288.167	288.167	288.167	T 1
	T 2	288.167	288.167	288.167	288.167	288.167	T 2
	UUBAR FS						UUBAR FS
	P1 FS						P1 FS
	LOSS PARA FS						LOSS PARA FS
ROTOR	PCT SPAN	90.07	70.43	50.34	30.47	10.16	PCT SPAN
	DIA	0.430	0.452	0.475	0.497	0.520	DIA
ROTOR -L.E.	BETA 2	13.697	14.966	15.270	15.509	15.783	BETA 2
ROTOR -T.E.	BETA 3	58.768	53.930	52.163	51.960	58.522	BETA 3
	BETA(PR) 2	54.145	54.887	56.460	58.178	60.166	BETA(PR) 2
	BETA(PR) 3	-4.915	16.862	24.560	30.388	37.651	BETA(PR) 3
	V 2	157.54	161.70	162.65	161.75	156.43	V 2
	V 3	275.97	264.79	256.39	250.28	239.57	V 3
	VZ 2	153.09	156.00	156.63	155.02	151.31	VZ 2
	VZ 3	143.09	155.85	157.11	153.91	124.81	VZ 3
	V-THETA 2	37.31	41.72	42.76	43.02	42.77	V-THETA 2
	V-THETA 3	235.97	213.96	202.27	196.71	203.86	V-THETA 3
	V(PR) 2	261.4	271.4	283.8	294.5	304.8	V(PR) 2
	V(PR) 3	143.6	107.9	173.1	179.1	158.5	V(PR) 3
	VTHETA PR2	-211.6	-221.4	-238.3	-249.8	-263.8	VTHETA PR2
	VTHETA PR3	-12.3	-47.1	-71.8	-90.3	-96.3	VTHETA PR3
	U 2	249.15	265.66	279.05	292.83	306.60	U 2
	U 3	249.27	261.02	274.07	286.96	300.15	U 3
	M 2	0.4734	0.4863	0.4899	0.4864	0.4760	M 2
	M 3	0.7957	0.7652	0.7399	0.7201	0.6817	M 3
	M(PR) 2	0.7851	0.8162	0.8537	0.8856	0.9156	M(PR) 2
	M(PR) 3	0.4141	0.4709	0.4997	0.5154	0.4509	M(PR) 3
	TURN(PR)	49.228	38.070	31.876	27.778	22.541	TURN(PR)
	UUBAR	0.2274	0.1024	0.0558	0.0538	0.1681	UUBAR
	LOSS PARA	0.3812	0.0369	0.0201	0.0192	0.0575	LOSS PARA
	DFAC	0.7224	0.6371	0.6089	0.6041	0.7046	DFAC
	EFFP	0.4560	0.9256	0.9549	0.9554	0.8678	EFFP
	EFF	0.8461	0.9205	0.9518	0.9523	0.8535	EFF
	INCID	-0.102	0.158	6.785	7.269	8.674	INCID
	DEVM	14.934	10.808	9.479	10.137	16.774	DEVM
	P 2	10.051	10.112	10.128	10.120	10.085	P 2
	P 3	10.096	10.128	16.176	16.217	16.025	P 3
	T 2	288.167	288.167	288.167	288.167	288.167	T 2
	T 3	337.226	332.833	331.505	331.805	335.933	T 3
STATOR	PCT SPAN	90.02	70.31	50.[illegible]	30.11	10.14	PCT SPAN
	DIA	0.429	0.448	0.47[illegible]	0.487	0.506	DIA
STATOR-L.E.	BETA 3	57.908	53.094	51.163	51.086	57.453	BETA 3
STATOR-T.E.	BETA 4	17.992	15.557	16.492	17.556	17.950	BETA 4
	V 3	275.46	266.11	260.54	254.39	243.78	V 3
	V 4	177.46	190.53	192.58	191.60	191.12	V 4
	VZ 3	147.62	160.95	163.16	159.54	130.94	VZ 3
	VZ 4	100.77	183.48	184.46	182.31	181.22	VZ 4
	V-THETA 3	230.11	214.32	202.81	197.62	205.16	V-THETA 3
	V-THETA 4	54.81	51.08	54.61	57.68	58.71	V-THETA 4
	M 3	0.8038	0.7760	0.7533	0.7332	0.6948	M 3
	M 4	0.4937	0.5357	0.5430	0.5398	0.5348	M 4
	TURN(PR)	39.492	37.520	34.642	33.451	39.418	TURN(PR)
	UUBAR	0.2017	0.1322	0.1259	0.1368	0.1036	UUBAR
	LOSS PARA	0.6696	0.0482	0.0476	0.0535	0.0420	LOSS PARA
	DFAC	0.5996	0.5214	0.4879	0.4759	0.4767	DFAC
	EFFP	0.7201	0.7811	0.7707	0.7363	0.7733	EFFP
	INCID	13.493	11.700	10.246	8.660	11.078	INCID
	DEVM	25.411	15.841	14.834	16.239	16.750	DEVM
	P 3	16.098	16.128	16.176	16.217	16.025	P 3
	P 4	14.473	15.428	15.538	15.550	15.568	P 4
	T 3	337.226	332.833	331.505	331.805	335.933	T 3
	T 4	337.226	332.833	331.505	331.805	335.933	T 4

Table C-3. Blade Element Performance (Continued)
Stage G, Rotor G - Stator G
Calculated Using Translated Values
Percent Equivalent Rotor Speed = 84.98 Equivalent Rotor Speed =9854.0 Equivalent Weight Flow = 17.092 kg/sec
Uniform Inlet
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	89.86	69.09	47.80	27.87	9.29	PCT SPAN
	DIA	0.434	0.466	0.498	0.528	0.555	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	18.178	19.403	20.176	20.105	20.088	BETA 2
	V 1	115.50	119.27	118.99	118.14	114.92	V 1
	V 2	141.69	143.76	143.42	141.73	139.15	V 2
	VZ 1	115.48	119.08	118.50	117.30	113.74	VZ 1
	VZ 2	134.63	139.43	139.19	132.36	129.64	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	44.08	47.70	49.31	48.45	47.41	V-THETA 2
	M 1	0.3434	0.3549	0.3540	0.3514	0.3416	M 1
	M 2	0.4238	0.4302	0.4291	0.4239	0.4159	M 2
	TURN	-18.13	-19.38	-20.11	-19.99	-19.92	TURN
	UUBAR	0.0915	0.0445	0.0306	0.0370	0.0533	UUBAR
	DFAC	-0.073	-0.044	-0.036	-0.032	-0.038	DFAC
	EFFP	0.8535	0.9152	0.9401	0.9264	0.9023	EFFP
	INCID	-0.6600	-0.2900	0.0800	0.4100	0.7300	INCID
	DEVM	5.625	6.011	6.770	4.031	5.650	DEVM
	P 1	10.110	10.140	10.146	10.138	10.118	P 1
	P 2	10.038	10.108	10.120	10.107	10.077	P 2
	T 1	288.167	288.167	288.167	288.167	288.167	T 1
	T 2	288.167	288.167	288.167	288.167	288.167	T 2
	UUBAR FS						UUBAR FS
	P1 FS						P1 FS
	LOSS PARA FS						LOSS PARA FS
ROTOR	PCT SPAN	90.07	70.43	50.34	30.47	10.16	PCT SPAN
	DIA	0.450	0.482	0.475	0.497	0.520	DIA
ROTOR -L.E.	BETA 2	14.023	15.065	15.716	15.770	15.613	BETA 2
ROTOR -T.E.	BETA 3	44.898	40.290	38.438	37.039	40.119	BETA 3
	BETA(PR) 2	45.149	46.027	47.793	49.359	52.076	BETA(PR) 2
	BETA(PR) 3	5.153	15.267	22.882	28.926	34.914	BETA(PR) 3
	V 2	182.99	187.18	187.86	186.31	183.26	V 2
	V 3	288.43	273.06	257.81	246.77	228.41	V 3
	VZ 2	177.52	180.57	180.30	178.34	174.99	VZ 2
	VZ 3	204.31	208.19	201.59	196.29	174.21	VZ 3
	V-THETA 2	44.34	48.60	50.73	50.36	48.56	V-THETA 2
	V-THETA 3	203.58	176.50	159.99	148.12	140.80	V(PR) 2
	V(PR) 2	251.7	260.2	268.8	277.3	285.8	V(PR) 3
	V(PR) 3	205.2	216.0	219.3	225.2	213.6	VTHETA PR2
	VTHETA PR2	-178.5	-187.2	-198.8	-211.5	-224.0	VTHETA PR3
	VTHETA PR3	-18.4	-56.9	-85.1	-108.5	-121.0	U 2
	U 2	222.79	235.76	249.52	261.84	274.16	U 3
	U 3	222.06	233.40	245.07	256.60	268.40	M 2
	M 2	0.5540	0.5675	0.5697	0.5647	0.5549	M 3
	M 3	0.8570	0.8132	0.7865	0.7323	0.6732	
	M(PR) 2	0.7621	0.7869	0.8150	0.8405	0.8647	M(PR) 2
	M(PR) 3	0.6095	0.6433	0.6521	0.6684	0.6282	M(PR) 3
	TURN(PR)	39.994	30.722	24.877	20.901	17.155	TURN(PR)
	UUBAR	0.2397	0.1338	0.1067	0.0990	0.2085	UUBAR
	LOSS PARA	0.0856	0.0486	0.0389	0.0358	0.0738	LOSS PARA
	DFAC	0.4113	0.3535	0.3418	0.3307	0.3959	DFAC
	EFFP	0.8023	0.8657	0.8727	0.8689	0.7156	EFFP
	EFF	0.7931	0.8606	0.8678	0.8642	0.7069	EFF
	INCID	-2.894	-2.704	-1.889	-1.065	-1.440	INCID
	DEVM	15.172	9.294	7.763	8.674	14.044	DEVM
	P 2	10.038	10.108	10.120	10.107	10.077	P 2
	P 3	13.866	13.588	13.232	12.978	12.475	P 3
	T 2	288.167	288.167	288.167	288.167	288.167	T 2
	T 3	323.305	317.722	314.605	312.855	313.605	T 3
STATOR	PCT SPAN	90.02	70.31	50.34	30.11	10.14	PCT SPAN
	DIA	0.429	0.448	0.467	0.487	0.506	DIA
STATOR-L.E.	BETA 3	44.213	39.630	37.750	36.475	39.531	BETA 3
STATOR-T.E.	BETA 4	12.775	12.602	12.702	13.667	14.419	BETA 4
	V 3	292.13	277.33	262.43	250.99	232.88	V 3
	V 4	252.21	252.15	244.74	234.45	223.27	V 4
	VZ 3	209.37	213.48	207.18	201.29	179.02	VZ 3
	VZ 4	245.96	245.96	238.48	227.33	215.50	VZ 4
	V-THETA 3	203.70	176.80	160.42	148.81	147.74	V-THETA 3
	V-THETA 4	55.77	54.99	53.75	55.28	55.41	V-THETA 4
	M 3	0.8696	0.8276	0.7819	0.7462	0.6860	M 3
	M 4	0.7367	0.7437	0.7234	0.6922	0.6552	M 4
	TURN(PR)	31.436	27.009	24.996	22.725	25.005	TURN(PR)
	UUBAR	0.0623	0.0286	0.0259	0.0671	0.0563	UUBAR
	LOSS PARA	0.0220	0.0106	0.0099	0.0267	0.0232	LOSS PARA
	DFAC	0.3209	0.2583	0.2300	0.2216	0.2141	DFAC
	EFFP	0.8145	0.8731	0.8441	0.5753	0.4229	EFFP
	INCID	-0.279	-1.764	-3.187	-5.747	-8.856	INCID
	DEVM	20.195	12.937	11.047	12.358	13.229	DEVM
	P 3	13.866	13.588	13.232	12.978	12.475	P 3
	P 4	13.530	13.447	13.118	12.709	12.285	P 4
	T 3	323.305	317.722	314.605	312.855	313.605	T 3
	T 4	323.305	317.722	314.605	312.855	313.805	T 4

Table C-3. Blade Element Performance (Continued)
Stage G, Rotor G - Stator G
Calculated Using Translated Values
Percent Equivalent Rotor Speed = 84.78 Equivalent Rotor Speed =9831.00 Equivalent Weight Flow = 16.831 kg/sec
Uniform Inlet
SI (Metric) Units

INLET GUIDE VANE							
I.G.V.-L.E.	PCT SPAN	89.86	69.09	47.80	27.87	9.29	PCT SPAN
I.G.V.-T.E.	DIA	0.434	0.466	0.498	0.528	0.555	DIA
	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
	BETA 2	17.768	19.045	19.819	19.753	19.737	BETA 2
	V 1	112.16	117.31	117.32	116.19	113.44	V 1
	V 2	136.24	140.74	140.52	139.32	136.72	V 2
	VZ 1	112.14	117.12	116.84	115.37	112.27	VZ 1
	VZ 2	131.03	132.87	131.78	130.40	127.66	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	42.18	45.87	47.49	46.83	45.80	V-THETA 2
	M 1	0.3332	0.3489	0.3489	0.3455	0.3371	M 1
	M 2	0.4131	0.4206	0.4202	0.4165	0.4084	M 2
	TURN	-17.77	-19.07	-19.75	-19.04	-19.57	TURN
	UUBAR	0.0904	0.0468	0.0348	0.0251	0.0491	UUBAR
	DFAC	-0.081	-0.042	-0.034	-0.034	-0.036	DFAC
	EFFP	0.8580	0.9086	0.9296	0.9485	0.9067	EFFP
	INCID	-0.6600	-0.2900	0.0800	0.4100	0.7300	INCID
	DEVM	0.185	0.370	7.126	8.381	9.998	DEVM
	P 1	10.099	10.146	10.149	10.136	10.123	P 1
	P 2	10.032	10.106	10.120	10.118	10.086	P 2
	T 1	288.167	288.167	288.167	288.167	288.167	T 1
	T 2	288.167	288.167	288.167	288.167	288.167	T 2
	UUBAR FS						UUBAR FS
	P1 FS						P1 FS
	LOSS PARA FS						LOSS PARA FS

ROTOR							
ROTOR -L.E.	PCT SPAN	90.67	70.43	50.34	30.47	10.16	PCT SPAN
ROTOR -T.E.	DIA	0.430	0.462	0.495	0.497	0.520	DIA
	BETA 2	13.808	14.852	15.506	15.551	15.594	BETA 2
	BETA 3	47.022	42.888	41.044	40.940	44.096	BETA 3
	BETA(PR) 2	46.172	46.922	48.094	50.547	52.754	BETA(PR) 2
	BETA(PR) 3	0.501	16.194	23.138	28.541	34.360	BETA(PR) 3
	V 2	177.76	182.91	183.33	182.55	179.47	V 2
	V 3	270.92	260.79	250.16	240.88	226.57	V 3
	VZ 2	172.63	170.24	170.13	174.42	171.56	VZ 2
	VZ 3	181.96	190.98	188.37	181.39	182.03	VZ 3
	V-THETA 2	42.43	46.73	48.67	48.68	47.88	V-THETA 2
	V-THETA 3	200.70	177.40	164.00	157.35	156.99	V-THETA 3
	V(PR) 2	249.3	250.2	266.9	275.9	284.3	V(PR) 2
	V(PR) 3	183.1	199.0	205.3	207.4	197.4	V(PR) 3
	VTHETA PR2	-174.6	-188.5	-200.1	-212.6	-225.6	VTHETA PR2
	VTHETA PR3	-20.7	-55.5	-80.5	-98.7	-110.6	VTHETA PR3
	U 2	222.27	235.21	248.94	261.23	273.52	U 2
	U 3	221.48	232.86	244.56	256.00	267.77	U 3
	M 2	0.5375	0.5525	0.7551	0.5526	0.5427	M 2
	M 3	0.7084	0.7713	0.7394	0.7046	0.6621	M 3

	M(PR) 2	0.7534	0.7615	0.8082	0.8352	0.8597	M(PR) 2
	M(PR) 3	0.5340	0.5887	0.6069	0.6109	0.5768	M(PR) 3
	TURN(PR)	39.669	30.712	25.470	21.974	18.387	TURN(PR)
	UUBAR	0.1970	0.0660	0.0218	0.0443	0.1374	UUBAR
	LOSS PARA	0.0702	0.0241	0.0079	0.0161	0.0490	LOSS PARA
	DFAC	0.4918	0.4182	0.3984	0.4082	0.4682	DFAC
	EFFP	0.8400	0.9354	0.9746	0.9482	0.8303	EFFP
	EFF	0.8322	0.9324	0.9734	0.9460	0.8297	EFF
	INCID	-1.871	-1.808	-1.040	-0.376	-0.762	INCID
	DEVM	10.520	10.266	8.020	8.296	13.491	DEVM
	P 2	10.037	10.106	10.120	10.116	10.086	P 2
	P 3	14.037	14.005	13.862	13.681	13.375	P 3
	T 2	288.167	288.167	288.167	288.167	288.167	T 2
	T 3	323.044	318.344	316.011	315.589	316.933	T 3

STATOR							
STATOR-L.E.	PCT SPAN	90.02	70.31	50.34	30.11	10.14	PCT SPAN
STATOR-T.E.	DIA	0.429	0.461	0.467	0.467	0.500	DIA
	BETA 3	47.269	42.304	40.374	40.355	43.660	BETA 3
	BETA 4	12.661	12.765	13.840	15.311	14.670	BETA 4
	V 3	273.40	264.14	254.71	244.70	23.34	V 3
	V 4	225.20	227.26	222.59	214.71	20.60	V 4
	VZ 3	187.44	195.26	193.39	188.03	188.68	VZ 3
	VZ 4	219.59	221.54	215.88	206.66	197.06	VZ 4
	V-THETA 3	200.68	177.70	164.44	158.07	156.00	V-THETA 3
	V-THETA 4	49.69	50.27	53.18	56.58	52.33	V-THETA 4
	M 3	0.8067	0.7824	0.7527	0.7221	0.6741	M 3
	M 4	0.6510	0.6627	0.6505	0.6261	0.5931	M 4
	TURN(PR)	34.400	29.500	26.482	24.961	26.490	TURN(PR)
	UUBAR	0.0475	0.0304	0.0369	0.0635	0.0711	UUBAR
	LOSS PARA	0.0168	0.0112	0.0141	0.0251	0.0293	LOSS PARA
	DFAC	0.3772	0.3236	0.2694	0.2957	0.3112	DFAC
	EFFP	0.8836	0.9074	0.8727	0.7739	0.7166	EFFP
	INCID	2.796	0.409	-0.584	-1.871	-2.421	INCID
	DEVM	20.220	13.120	12.184	13.999	15.674	DEVM
	P 3	14.037	14.005	13.862	13.681	13.375	P 3
	P 4	13.303	13.263	13.702	13.426	13.076	P 4
	T 3	323.044	318.344	316.011	315.589	316.933	T 3
	T 4	323.044	318.344	316.011	315.563	316.933	T 4

Table C-3. Blade Element Performance (Continued)
Stage G, Rotor G - Stator G
Calculated Using Translated Values
Percent Equivalent Rotor Speed = 84.75 Equivalent Rotor Speed = 9828.00 Equivalent Weight Flow = 16.074 kg/sec
Uniform Inlet
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	89.86	69.09	47.80	27.87	6.29	PCT SPAN
	DIA	0.434	0.466	0.498	0.528	0.555	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	17.723	18.971	19.568	19.700	19.684	BETA 2
	V 1	106.10	111.38	111.53	111.95	109.26	V 1
	V 2	131.33	133.81	133.62	132.30	129.64	V 2
	VZ 1	106.08	111.20	111.07	111.16	109.13	VZ 1
	VZ 2	125.08	126.39	125.50	123.87	121.08	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	39.97	43.65	44.61	44.35	43.22	V-THETA 2
	M 1	0.3149	0.3309	0.3313	0.3326	0.3244	M 1
	M 2	0.3918	0.3995	0.3989	0.3948	0.3866	M 2
	TURN	-17.72	-18.95	-19.50	-19.59	-19.52	TURN
	UUBAR	0.0923	0.0507	0.0393	0.0344	0.0684	UUBAR
	DFAC	-0.086	-0.045	-0.036	-0.019	-0.021	DFAC
	EFFP	0.8579	0.9020	0.9210	0.9238	0.8623	EFFP
	INCID	-0.6600	-0.2900	0.0900	0.4100	0.7300	INCID
	DEVM	6.230	6.443	7.377	8.434	10.051	DEVM
	P 1	10.099	10.144	10.148	10.138	10.127	P 1
	P 2	10.037	10.107	10.118	10.112	10.079	P 2
	T 1	288.167	288.167	288.167	288.167	288.167	T 1
	T 2	288.167	288.167	288.167	288.167	288.167	T 2
	UUBAR FS						UUBAR FS
	P1 FS						P1 FS
	LOSS PARA FS						LOSS PARA FS
ROTOR	PCT SPAN	90.07	70.42	50.34	30.47	10.14	PCT SPAN
	DIA	0.430	0.452	0.475	0.497	0.520	DIA
ROTOR -L.E.	BETA 2	13.882	14.923	15.448	15.651	15.692	BETA 2
ROTOR -T.E.	BETA 3	49.948	45.458	43.554	43.397	47.045	BETA 3
	BETA(PR) 2	48.205	48.968	50.707	52.575	54.759	BETA(PR) 2
	BETA(PR) 3	7.257	17.212	24.404	29.492	35.582	BETA(PR) 3
	V 2	167.60	172.08	172.83	171.82	168.70	V 2
	V 3	261.30	250.42	240.49	233.75	220.36	V 3
	VZ 2	162.69	166.11	166.09	164.56	161.19	VZ 2
	VZ 3	168.13	175.57	174.03	169.36	144.54	VZ 3
	V-THETA 2	40.21	44.27	45.90	46.10	45.28	V-THETA 2
	V-THETA 3	200.01	178.40	165.46	160.14	160.67	V-THETA 3
	V(PR) 2	244.1	253.1	262.6	271.4	280.1	V(PR) 2
	V(PR) 3	169.5	184.0	191.6	195.4	184.4	V(PR) 3
	VTHETA PR2	-182.0	-190.9	-203.0	-215.0	-228.2	VTHETA PR2
	VTHETA PR3	-21.4	-54.4	-79.0	-95.8	-107.0	VTHETA PR3
	U 2	222.20	235.14	248.87	261.15	273.44	U 2
	U 3	221.42	232.79	244.42	255.92	267.69	U 3
	M 2	0.5049	0.5191	0.5215	0.5183	0.5084	M 2
	M 3	0.7663	0.7362	0.7065	0.6850	0.6606	M 3
	M(PR) 2	0.7354	0.7637	0.7924	0.8186	0.8442	M(PR) 2
	M(PR) 3	0.4971	0.5408	0.5628	0.5725	0.5776	M(PR) 3
	TURN(PR)	40.946	31.740	24.273	18.057	10.179	TURN(PR)
	UUBAR	0.1786	0.0663	0.0213	0.0287	0.1228	UUBAR
	LOSS PARA	0.0635	0.0239	0.0077	0.0103	0.0431	LOSS PARA
	DFAC	0.5398	0.4714	0.4476	0.4506	0.5143	DFAC
	EFFP	0.8622	0.9389	0.9766	0.9687	0.8657	EFFP
	EFF	0.8553	0.9369	0.9755	0.9672	0.8598	EFF
	INCID	0.162	0.238	1.026	1.655	1.248	INCID
	DEVM	17.276	11.217	9.283	9.238	14.710	DEVM
	P 2	10.037	10.107	10.118	10.112	10.079	P 2
	P 3	14.210	14.139	14.032	13.969	13.664	P 3
	T 2	288.167	288.167	288.167	288.167	288.167	T 2
	T 3	323.355	319.133	317.094	316.978	318.611	T 3
STATOR	PCT SPAN	90.02	70.31	50.34	30.11	10.14	PCT SPAN
	DIA	0.429	0.448	0.467	0.487	0.506	DIA
STATOR-L.E.	BETA 3	49.450	44.907	42.910	42.820	46.406	BETA 3
STATOR-T.E.	BETA 4	12.996	12.929	14.477	15.730	14.990	BETA 4
	V 3	263.39	253.24	243.99	237.21	223.85	V 3
	V 4	205.77	208.45	205.28	200.07	191.38	V 4
	VZ 3	171.23	179.28	178.47	173.61	153.95	VZ 3
	VZ 4	200.49	203.08	198.54	192.18	184.24	VZ 4
	V-THETA 3	200.13	178.70	165.91	160.88	161.64	V-THETA 3
	V-THETA 4	46.27	46.62	51.26	54.13	49.33	V-THETA 4
	M 3	0.7731	0.7454	0.7179	0.6961	0.6516	M 3
	M 4	0.5904	0.6028	0.5951	0.5791	0.5508	M 4
	TURN(PR)	36.452	31.059	28.381	27.006	31.306	TURN(PR)
	UUBAR	0.0670	0.0359	0.0334	0.0585	0.0582	UUBAR
	LOSS PARA	0.0237	0.0132	0.0128	0.0231	0.0240	LOSS PARA
	DFAC	0.4313	0.3757	0.3464	0.3443	0.3631	DFAC
	EFFP	0.8612	0.9097	0.9060	0.8311	0.8158	EFFP
	INCID	4.957	3.512	1.971	0.593	0.017	INCID
	DEVM	20.415	13.264	12.820	14.417	13.799	DEVM
	P 3	14.210	14.139	14.032	13.969	13.664	P 3
	P 4	13.899	13.983	13.896	13.743	13.466	P 4
	T 3	323.355	319.133	317.094	316.978	318.611	T 3
	T 4	323.355	319.133	317.094	316.978	318.611	T 4

Table C-3. Blade Element Performance (Continued)
Stage G, Rotor G - Stator G
Calculated Using Translated Values
Percent Equivalent Rotor Speed = 84.65 Equivalent Rotor Speed = 9816.00 Equivalent Weight Flow = 15.404 kg/sec
Uniform Inlet
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	89.86	69.09	47.80	27.87	9.29	PCT SPAN
	DIA	0.434	0.466	0.498	0.528	0.555	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	17.471	18.936	19.720	19.652	19.641	BETA 2
	V 1	102.86	106.46	106.58	105.17	101.03	V 1
	V 2	124.55	126.85	126.85	125.35	123.26	V 2
	VZ 1	102.84	106.29	106.14	104.43	99.99	VZ 1
	VZ 2	118.78	119.83	119.03	117.39	115.16	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	37.39	41.11	42.67	41.92	41.10	V-THETA 2
	M 1	0.3051	0.3160	0.3163	0.3120	0.2995	M 1
	M 2	0.3710	0.3780	0.3781	0.3735	0.3671	M 2
	TURN	-17.47	-18.91	-19.65	-19.54	-19.48	TURN
	UUBAR	0.1055	0.0533	0.0368	0.0357	0.0319	UUBAR
	DFAC	-0.064	-0.036	-0.028	-0.029	-0.050	DFAC
	EFFP	0.8215	0.8919	0.9222	0.9250	0.9411	EFFP
	INCID	-0.6600	-0.2900	0.0800	0.4100	0.7300	INCID
	DEVM	6.481	6.479	7.225	8.481	10.093	DEVM
	P 1	10.115	10.145	10.148	10.137	10.112	P 1
	P 2	10.048	10.109	10.123	10.113	10.092	P 2
	T 1	288.167	288.167	288.167	288.167	288.167	T 1
	T 2	288.167	288.167	288.167	288.167	288.167	T 2
	UUBAR FS						UUBAR FS
	P1 FS						P1 FS
	LOSS PARA FS						LOSS PARA FS
ROTOR	PCT SPAN	90.07	70.43	50.34	30.47	10.16	PCT SPAN
	DIA	0.430	0.452	0.475	0.497	0.520	DIA
ROTOR -L.E.	BETA 2	13.781	15.008	15.685	15.735	15.768	BETA 2
ROTOR -T.E.	BETA 3	53.136	47.513	45.476	45.524	49.603	BETA 3
	BETA(PR) 2	50.246	51.002	52.624	54.551	56.529	BETA(PR) 2
	BETA(PR) 3	6.284	17.099	24.283	29.954	35.701	BETA(PR) 3
	V 2	157.88	161.93	162.87	161.56	159.31	V 2
	V 3	255.34	246.08	237.50	229.39	218.60	V 3
	VZ 2	153.32	156.25	156.34	154.68	152.16	VZ 2
	VZ 3	153.17	166.14	166.31	160.28	141.18	VZ 3
	V-THETA 2	37.61	41.89	43.90	43.58	42.46	V-THETA 2
	V-THETA 3	204.28	181.40	169.09	163.24	155.91	V-THETA 3
	V(PR) 2	239.8	248.4	257.9	267.2	276.6	V(PR) 2
	V(PR) 3	154.1	174.0	182.4	185.8	174.8	V(PR) 3
	VTHETA PR2	-184.3	-193.0	-204.7	-217.3	-230.1	VTHETA PR2
	VTHETA PR3	-16.9	-51.1	-78.0	-92.4	-101.5	VTHETA PR3
	U 2	221.93	234.85	248.56	260.83	273.10	U 2
	U 3	221.15	232.50	244.12	255.61	267.36	U 3
	M 2	0.4743	0.4870	0.4980	0.4858	0.4768	M 2
	M 3	0.7449	0.7206	0.6953	0.6694	0.6330	M 3
	M(PR) 2	0.7203	0.7471	0.7757	0.8036	0.8312	M(PR) 2
	M(PR) 3	0.4496	0.5094	0.5354	0.5421	0.5061	M(PR) 3
	TURN(PR)	43.959	33.988	28.313	24.575	20.735	TURN(PR)
	UUBAR	0.2198	0.0720	0.0162	0.0332	0.1285	UUBAR
	LOSS PARA	0.0784	0.0259	0.0058	0.0119	0.0460	LOSS PARA
	DFAC	0.6059	0.5096	0.4707	0.4868	0.5565	DFAC
	EFFP	0.8410	0.9380	0.9829	0.9663	0.8704	EFFP
	EFF	0.8329	0.9349	0.9821	0.9447	0.8643	EFF
	INCID	2.203	2.272	2.945	3.634	3.023	INCID
	DEVM	16.304	11.104	9.162	8.698	14.829	DEVM
	P 2	10.048	10.109	10.123	10.113	10.062	P 2
	P 3	14.297	14.315	14.276	14.170	13.967	P 3
	T 2	288.167	288.167	288.167	288.167	288.167	T 2
	T 3	324.830	320.383	318.444	318.389	320.605	T 3
STATOR	PCT SPAN	90.02	70.31	50.34	30.11	10.14	PCT SPAN
	DIA	0.429	0.448	0.467	0.487	0.506	DIA
STATOR-L.E.	BETA 3	52.622	46.856	44.815	44.621	48.429	BETA 3
STATOR-T.E.	BETA 4	13.702	12.853	15.049	16.318	15.760	BETA 4
	V 3	257.23	248.73	240.81	232.69	222.01	V 3
	V 4	140.47	194.01	192.00	187.35	180.39	V 4
	VZ 3	156.15	169.70	170.64	164.39	149.51	VZ 3
	VZ 4	185.04	189.29	185.21	179.43	173.03	VZ 4
	V-THETA 3	204.40	181.70	169.55	164.00	166.97	V-THETA 3
	V-THETA 4	45.11	42.15	49.80	52.53	48.83	V-THETA 4
	M 3	0.7510	0.7291	0.7060	0.6799	0.6436	M 3
	M 4	0.5425	0.5572	0.5529	0.5368	0.5158	M 4
	TURN(PR)	38.919	34.383	29.714	28.530	33.064	TURN(PR)
	UUBAR	0.0661	0.0470	0.0504	0.0595	0.0674	UUBAR
	LOSS PARA	0.0233	0.0173	0.0192	0.0234	0.0276	LOSS PARA
	DFAC	0.4848	0.4338	0.4014	0.3945	0.4185	DFAC
	EFFP	0.8802	0.9013	0.8850	0.8574	0.8301	EFFP
	INCID	8.130	5.561	3.876	2.703	2.541	INCID
	DEVM	21.122	12.898	13.392	15.004	14.566	DEVM
	P 3	14.297	14.315	14.276	14.170	13.967	P 3
	P 4	14.002	14.115	14.072	13.946	13.738	P 4
	T 3	324.830	320.383	318.444	318.389	320.605	T 3
	T 4	324.830	320.383	318.444	318.389	320.605	T 4

Table C-3. Blade Element Performance (Continued)
Stage G, Rotor G - Stator G
Calculated Using Translated Values
Percent Equivalent Rotor Speed = 85.12 Equivalent Rotor Speed = 9870.00 Equivalent Weight Flow = 14.687 kg/sec
Uniform Inlet
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	89.86	69.09	47.80	27.67	6.24	PCT SPAN
	DIA	0.434	0.466	0.498	0.528	0.555	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	17.203	18.366	19.414	19.973	20.148	BETA 2
	V 1	95.33	101.16	101.52	100.52	97.08	V 1
	V 2	117.24	119.82	119.73	118.24	116.12	V 2
	VZ 1	95.31	100.99	101.10	99.81	96.08	VZ 1
	VZ 2	111.98	113.58	112.56	110.51	108.15	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	34.67	37.71	39.67	40.17	39.68	V-THETA 2
	M 1	0.2824	0.2999	0.3010	0.2980	0.2878	M 1
	M 2	0.3487	0.3566	0.3563	0.3517	0.3465	M 2
	TURN	-17.20	-18.34	-19.35	-19.86	-19.98	TURN
	UUBAR	0.0843	0.0509	0.0427	0.0461	0.0541	UUBAR
	DFAC	-0.083	-0.035	-0.021	-0.013	-0.025	DFAC
	EFFP	0.8632	0.8920	0.9053	0.8925	0.8695	EFFP
	INCID	-0.6600	-0.2900	0.0800	0.4100	0.7300	INCID
	DEVM	6.750	7.047	7.530	8.161	8.585	DEVM
	P 1	10.099	10.144	10.149	10.141	10.122	P 1
	P 2	10.053	10.113	10.122	10.112	10.091	P 2
	T 1	288.167	288.167	288.167	288.167	288.167	T 1
	T 2	288.167	288.167	288.167	288.167	288.167	T 2
	UUBAR FS						UUBAR FS
	P1 FS						P1 FS
	LOSS PARA FS						LOSS PARA FS
ROTOR	PCT SPAN	90.07	70.43	50.34	30.47	10.16	PCT SPAN
	DIA	0.430	0.452	0.475	0.497	0.520	DIA
ROTOR -L.E.	BETA 2	13.657	14.657	15.551	16.098	16.220	BETA 2
ROTOR -T.E.	BETA 3	54.387	48.935	47.851	48.136	52.772	BETA 3
	BETA(PR) 2	52.682	53.390	54.953	56.732	58.644	BETA(PR) 2
	BETA(PR) 3	6.696	17.785	24.917	30.478	36.904	BETA(PR) 3
	V 2	147.71	151.99	152.71	151.34	144.09	V 2
	V 3	252.31	242.44	233.38	226.50	215.62	V 3
	VZ 2	143.52	146.90	146.68	144.67	142.04	VZ 2
	VZ 3	146.92	159.20	156.41	150.79	130.06	VZ 3
	V-THETA 2	34.87	38.42	40.82	41.75	41.46	V-THETA 2
	V-THETA 3	205.12	182.72	172.81	168.27	171.17	V-THETA 3
	V(PR) 2	236.6	246.4	255.7	264.2	273.6	V(PR) 2
	V(PR) 3	147.9	167.3	172.9	175.7	163.5	V(PR) 3
	VTHETA PR2	-188.3	-197.7	-209.1	-220.5	-233.1	VTHETA PR2
	VTHETA PR3	-17.2	-51.1	-72.7	-88.7	-67.7	VTHETA PR3
	U 2	223.15	236.15	249.93	262.77	274.61	U 2
	U 3	222.36	233.78	245.47	257.02	268.83	U 3
	M 2	0.4425	0.4558	0.4581	0.4539	0.4488	M 2
	M 3	0.7339	0.7072	0.6799	0.6581	0.6216	M 3
	M(PR) 2	0.7092	0.7390	0.7670	0.7922	0.8199	M(PR) 2
	M(PR) 3	0.4303	0.4881	0.5036	0.5104	0.4713	M(PR) 3
	TURN(PR)	45.984	35.591	30.010	26.238	21.759	TURN(PR)
	UUBAR	0.2128	0.0779	0.0420	0.0482	0.1429	UUBAR
	LOSS PARA	0.0758	0.0280	0.0151	0.0172	0.0493	LOSS PARA
	DFAC	0.6324	0.5400	0.5250	0.5298	0.6035	DFAC
	EFFP	0.8548	0.9371	0.9611	0.9546	0.8863	EFFP
	EFF	0.8469	0.9338	0.9591	0.9523	0.8596	EFF
	INCID	4.639	4.660	5.275	5.820	5.148	INCID
	DEVM	16.715	11.789	9.795	10.222	16.029	DEVM
	P 2	10.053	10.113	10.122	10.112	10.091	P 2
	P 3	14.513	14.504	14.443	14.399	14.208	P 3
	T 2	288.167	288.167	288.167	288.167	288.167	T 2
	T 3	325.800	321.661	320.283	320.322	322.589	T 3
STATOR	PCT SPAN	90.02	70.31	50.34	30.11	10.14	PCT SPAN
	DIA	0.429	0.448	0.467	0.487	0.506	DIA
STATOR-L.E.	BETA 3	53.871	48.376	47.170	47.527	52.057	BETA 3
STATOR-T.E.	BETA 4	15.795	13.217	15.637	16.674	15.940	BETA 4
	V 3	254.11	244.94	236.53	229.62	218.90	V 3
	V 4	178.10	181.88	181.32	177.70	171.64	V 4
	VZ 3	149.82	162.63	160.62	154.76	134.31	VZ 3
	VZ 4	171.36	176.99	174.41	169.88	164.49	VZ 4
	V-THETA 3	205.24	183.03	173.27	169.05	172.26	V-THETA 3
	V-THETA 4	48.48	41.57	48.82	50.88	46.98	V-THETA 4
	M 3	0.7397	0.7153	0.6900	0.6679	0.6318	M 3
	M 4	0.5046	0.5193	0.5188	0.5079	0.4879	M 4
	TURN(PR)	38.074	35.140	31.482	30.771	36.016	TURN(PR)
	UUBAR	0.0892	0.0646	0.0524	0.0666	0.0670	UUBAR
	LOSS PARA	0.0311	0.0238	0.0199	0.0262	0.0274	LOSS PARA
	DFAC	0.5236	0.4775	0.4435	0.4405	0.4642	DFAC
	EFFP	0.8547	0.8800	0.8933	0.8589	0.8499	EFFP
	INCID	9.378	6.982	6.231	5.300	5.672	INCID
	DEVM	23.215	13.552	13.979	15.359	14.745	DEVM
	P 3	14.513	14.504	14.443	14.399	14.208	P 3
	P 4	14.118	14.233	14.237	14.151	13.983	P 4
	T 3	325.800	321.661	320.283	320.322	321.589	T 3
	T 4	325.800	321.661	320.283	320.322	322.589	T 4

ORIGINAL PAGE IS
OF POOR QUALITY

Table C-3. Blade Element Performance (Continued)
Stage G, Rotor G - Stator G
Calculated Using Translated Values
Percent Equivalent Rotor Speed = 84.34 Equivalent Rotor Speed = 9780.00 Equivalent Weight Flow = 13.923 kg/sec
Uniform Inlet
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	89.86	69.09	47.80	27.87	9.29	PCT SPAN
	DIA	0.434	0.466	0.498	0.528	0.555	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	12.839	14.183	14.165	14.117	14.113	BETA 2
	V 1	88.66	96.74	96.32	94.69	91.35	V 1
	V 2	108.03	112.01	112.29	111.22	109.66	V 2
	VZ 1	88.64	96.58	95.93	94.02	90.41	VZ 1
	VZ 2	105.89	108.45	108.51	107.23	105.45	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	24.13	27.41	27.39	26.97	26.51	V-THETA 2
	M 1	0.2623	0.2866	0.2854	0.2804	0.2704	M 1
	M 2	0.3225	0.3328	0.3336	0.3304	0.3257	M 2
	TURN	-12.44	-14.16	-14.12	-14.03	-13.99	TURN
	UUBAR	0.0985	0.0727	0.0522	0.0450	0.0415	UUBAR
	DFAC	-0.?	-0.044	-0.051	-0.058	-0.079	DFAC
	EFFP	0.8401	0.8295	0.8771	0.8973	0.9167	EFFP
	INCID	-0.6800	-0.2900	0.0800	0.4100	0.7300	INCID
	DEVM	11.113	11.226	12.763	13.987	15.580	DFVM
	P 1	10.093	10.151	10.151	10.138	10.120	P 1
	P 2	10.046	10.111	10.122	10.114	10.099	P 2
	T 1	288.167	288.167	288.167	288.167	288.167	T 1
	T 2	288.167	288.167	288.167	288.167	288.167	T 2
	UUBAR FS						UUBAR FS
	P1 FS						P1 FS
	LOSS PARA FS						LOSS PARA FS
ROTOR	PCT SPAN	90.07	70.43	50.34	30.47	10.16	PCT SPAN
	DIA	0.430	0.462	0.493	0.497	0.520	DIA
ROTOR -L.E.	BETA 2	10.282	11.419	11.453	11.485	11.503	BETA 2
ROTOR -T.E.	BETA 3	54.442	49.189	46.961	46.328	51.443	BETA 3
	BETA(PR) 2	55.791	50.134	57.037	59.240	60.871	BETA(PR) 2
	BETA(PR) 3	7.386	18.375	25.894	31.309	37.026	BETA(PR) 3
	V 2	136.02	141.20	142.35	141.59	140.07	V 2
	V 3	247.88	237.93	229.29	223.33	213.42	V 3
	VZ 2	133.87	138.27	139.06	137.98	136.19	VZ 2
	VZ 3	144.15	155.45	156.28	153.82	137.60	VZ 3
	V-THETA 2	24.28	27.93	28.18	28.03	27.71	V-THETA 2
	V-THETA 3	201.65	180.02	167.36	161.12	166.36	V-THETA 3
	V(PR) 2	238.0	248.2	260.1	270.7	280.3	V(PR) 2
	V(PR) 3	145.4	163.4	174.1	180.8	167.0	V(PR) 3
	VTHETA PR2	-190.8	-206.1	-219.5	-231.8	-244.4	VTHETA PR2
	VTHETA PR3	-18.7	-51.6	-75.9	-93.6	-100.0	VTHETA PR3
	U 2	221.12	233.99	247.65	259.88	272.10	U 2
	U 3	220.34	231.65	243.23	254.67	266.38	U 3
	M 2	0.4062	0.4223	0.4256	0.4235	0.4188	M 2
	M 3	0.7182	0.6911	0.6653	0.6465	0.6125	M 3
	M(PR) 2	0.7109	0.7424	0.7780	0.8081	0.8361	M(PR) 2
	M(PR) 3	0.4211	0.4761	0.5052	0.5233	0.4792	M(PR) 3
	TURN(PR)	48.402	37.751	31.723	27.924	23.871	TURN(PR)
	UUBAR	0.2214	0.1011	0.0612	0.0596	0.1667	UUBAR
	LOSS PARA	0.0788	0.0362	0.0217	0.0210	0.0575	LOSS PARA
	DFAC	0.6560	0.5690	0.5393	0.5318	0.6148	DFAC
	EFFP	0.8521	0.9213	0.9463	0.9449	0.8460	EFFP
	EFF	0.8440	0.9171	0.9434	0.9420	0.8381	EFF
	INCID	7.748	7.411	7.463	8.334	7.382	INCID
	DEVM	17.406	12.380	10.771	11.051	10.151	DFVM
	P 2	10.046	10.111	10.122	10.114	10.099	P 2
	P 3	14.653	14.031	14.582	14.563	14.[illegible]	P 3
	T 2	288.167	288.167	288.167	288.167	288.167	T 2
	T 3	327.044	323.161	321.750	321.750	324.761	T 3
STATOR	PCT SPAN	90.02	70.31	50.34	30.11	10.14	PCT SPAN
	DIA	0.429	0.448	0.467	0.487	0.506	DIA
STATOR-L.E.	BETA 3	53.951	48.655	46.333	45.774	50.775	BETA 3
STATOR-T.E.	BETA 4	16.995	14.278	15.088	16.265	17.797	BETA 4
	V 3	249.56	240.76	232.25	226.33	216.61	V 3
	V 4	166.33	171.61	172.84	169.91	165.58	V 4
	VZ 3	146.86	158.66	166.18	157.55	136.67	VZ 3
	VZ 4	159.10	166.19	166.69	162.78	157.14	VZ 4
	V-THETA 3	201.77	180.32	167.81	161.86	167.43	V-THETA 3
	V-THETA 4	46.50	42.80	44.94	47.49	50.44	V-THETA 4
	M 3	0.7235	0.6985	0.6747	0.6560	0.6224	M 3
	M 4	0.4688	0.4934	0.4922	0.4834	0.4683	M 4
	TURN(PR)	36.995	34.358	31.193	29.425	32.882	TURN(PR)
	UUBAR	0.1265	0.0780	0.0713	0.0869	0.0780	UUBAR
	LOSS PARA	0.0446	0.0286	0.0271	0.0342	0.0316	LOSS PARA
	DFAC	0.5570	0.4955	0.4670	0.4597	0.4701	DFAC
	EFFP	0.8853	0.8625	0.8693	0.8292	0.8370	EFFP
	INCID	9.459	7.261	5.394	3.546	4.389	INCID
	DEVM	24.374	14.612	13.431	14.451	16.597	DEVM
	P 3	14.653	14.631	14.582	14.563	14.389	P 3
	P 4	14.099	14.314	14.305	14.246	14.131	P 4
	T 3	327.044	323.161	321.750	321.750	324.761	T 3
	T 4	327.044	323.161	321.750	321.750	324.761	T 4

Table C-3. Blade Element Performance (Continued)
Stage G, Rotor G - Stator G
Calculated Using Translated Values
Percent Equivalent Rotor Speed = 69.92 Equivalent Rotor Speed = 8108.0 Equivalent Weight Flow = 15.078 kg/sec
Uniform Inlet
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	89.66	67.09	47.80	27.87	9.29	PCT SPAN
	DIA	0.434	0.466	0.498	0.528	0.555	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	17.447	18.906	19.504	19.669	19.843	BETA 2
	V 1	99.37	103.33	104.49	103.11	99.68	V 1
	V 2	121.82	124.13	124.04	122.47	120.16	V 2
	VZ 1	99.35	103.16	104.06	102.39	98.65	VZ 1
	VZ 2	116.26	117.29	116.55	114.69	112.12	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	36.52	40.18	41.28	40.99	40.46	V-THETA 2
	M 1	0.2945	0.3065	0.3100	0.3058	0.2955	M 1
	M 2	0.3627	0.3697	0.3695	0.3646	0.3576	M 2
	TURN	-17.44	-18.88	-19.44	-19.56	-19.68	TURN
	UUBAR	0.1033	0.0531	0.0530	0.0555	0.0676	UUBAR
	DFAC	-0.076	-0.045	-0.027	-0.025	-0.036	DFAC
	EFFP	0.8351	0.8971	0.8898	0.8654	0.8747	EFFP
	INCID	-0.6600	-0.2900	0.0800	0.4100	0.7300	INCID
	DEVM	0.505	0.506	7.441	8.464	9.892	DEVM
	P 1	10.107	10.139	10.151	10.140	10.119	P 1
	P 2	10.096	10.105	10.116	10.104	10.079	P 2
	T 1	288.167	288.167	288.167	288.167	288.167	T 1
	T 2	288.167	288.167	288.167	288.167	288.167	T 2
	UUBAR FS						UUBAR FS
	P1 FS						P1 FS
	LOSS PARA FS						LOSS PARA FS

ROTOR	PCT SPAN	90.07	70.43	50.34	30.47	10.16	PCT SPAN
	DIA	0.430	0.452	0.475	0.497	0.520	DIA
ROTOR -L.E.	BETA 2	13.795	15.026	15.558	15.795	15.976	BETA 2
ROTOR -T.E.	BETA 3	45.159	39.963	38.029	37.886	40.200	BETA 3
	BETA(PR) 2	44.412	45.105	46.866	48.924	51.126	BETA(PR) 2
	BETA(PR) 3	5.449	14.940	22.116	27.759	33.184	BETA(PR) 3
	V 2	154.08	158.05	158.84	157.40	154.85	V 2
	V 3	235.21	226.91	215.78	205.79	193.81	V 3
	VZ 2	149.67	152.49	152.56	150.65	147.75	VZ 2
	VZ 3	165.92	173.83	169.67	161.86	147.32	VZ 3
	V-THETA 2	36.74	40.93	42.47	42.61	42.30	V-THETA 2
	V-THETA 3	186.84	145.67	132.70	125.94	124.49	V-THETA 3
	V(PR) 2	209.5	216.2	223.5	229.8	236.2	V(PR) 2
	V(PR) 3	186.7	180.1	183.6	183.7	177.0	V(PR) 3
	VTHETA PR2	-146.6	-153.1	-162.8	-172.8	-183.3	VTHETA PR2
	VTHETA PR3	-15.8	-46.4	-88.9	-85.2	-96.3	VTHETA PR3
	U 2	183.31	193.99	205.31	215.45	225.58	U 2
	U 3	162.07	192.05	201.05	211.13	220.84	U 3
	M 2	0.4624	0.4748	0.4773	0.4728	0.4648	M 2
	M 3	0.6962	0.6735	0.6399	0.6087	0.5704	M 3

M(PR) 2	0.6286	0.6494	0.6715	0.6904	0.7089	M(PR) 2
M(PR) 3	0.4932	0.5344	0.5444	0.5434	0.5210	M(PR) 3
TURN(PR)	38.960	30.147	24.715	21.129	17.928	TURN(PR)
UUBAR	0.1961	0.0577	0.0311	0.0577	0.1339	UUBAR
LOSS PARA	0.0700	0.0210	0.0114	0.0211	0.0484	LOSS PARA
DFAC	0.4264	0.3480	0.3353	0.3476	0.3974	DFAC
EFFP	0.8296	0.9386	0.9599	0.9214	0.8142	EFFP
EFF	0.8240	0.9367	0.9587	0.9192	0.8096	EFF
INCID	-3.631	-3.626	-2.816	-2.001	-2.393	INCID
DEVM	15.468	8.947	0.999	7.511	12.319	DEVM
P 2	10.046	10.105	10.110	10.104	10.079	P 2
P 3	12.030	12.589	12.397	12.199	11.961	P 3
T 2	288.167	288.167	288.167	288.167	288.167	T 2
T 3	311.800	308.105	306.144	305.500	306.011	T 3

STATOR	PCT SPAN	90.02	70.31	50.34	30.11	10.14	PCT SPAN
	DIA	0.429	0.448	0.467	0.487	0.506	DIA
STATOR-L.E.	BETA 3	44.829	39.588	37.597	37.509	39.771	BETA 3
STATOR-T.E.	BETA 4	11.274	11.754	12.714	14.180	14.592	BETA 4
	V 3	236.81	229.09	218.41	208.33	196.50	V 3
	V 4	216.20	216.67	211.24	203.34	193.89	V 4
	VZ 3	167.94	176.45	172.79	164.84	150.53	VZ 3
	VZ 4	212.02	212.04	205.82	196.74	187.00	VZ 4
	V-THETA 3	166.94	156.91	133.05	126.52	125.29	V-THETA 3
	V-THETA 4	42.27	44.12	46.44	49.71	48.68	V-THETA 4
	M 3	0.7011	0.6805	0.6483	0.6168	0.5788	M 3
	M 4	0.6349	0.6405	0.6254	0.6009	0.5706	M 4
	TURN(PR)	33.553	27.615	24.832	23.246	25.073	TURN(PR)
	UUBAR	0.0281	0.0246	0.0223	0.0409	0.0628	UUBAR
	LOSS PARA	0.0100	0.0091	0.0086	0.0163	0.0259	LOSS PARA
	DFAC	0.2786	0.2237	0.1915	0.1781	0.1833	DFAC
	EFFP	0.8613	0.8069	0.7101	0.2601	-1.0732	EFFP
	INCID	0.336	-1.806	-3.339	-4.715	-6.616	INCID
	DEVM	18.694	12.089	11.059	12.869	13.401	DEVM
	P 3	12.630	12.589	12.397	12.199	11.961	P 3
	P 4	12.531	12.506	12.329	12.086	11.809	P 4
	T 3	311.800	308.105	306.144	305.500	306.011	T 3
	T 4	311.800	308.105	306.144	305.500	306.011	T 4

Table C-3. Blade Element Performance (Continued)
Stage G, Rotor G - Stator G
Calculated Using Translated Values
Percent Equivalent Rotor Speed = 69.64 Equivalent Rotor Speed = 8075.00 Equivalent Weight Flow = 14.416 kg/sec
Uniform Inlet
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	89.66	69.09	47.80	27.87	9.29	PCT SPAN
	DIA	0.434	0.466	0.498	0.528	0.555	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	17.413	19.093	19.775	19.708	19.696	BETA 2
	V 1	93.10	99.04	100.58	98.71	93.93	V 1
	V 2	114.89	117.49	117.43	115.92	113.55	V 2
	VZ 1	93.09	98.88	100.16	98.02	92.96	VZ 1
	VZ 2	109.61	110.89	110.16	108.53	106.04	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	34.38	38.38	39.60	38.88	37.96	V-THETA 2
	M 1	0.2757	0.2935	0.2982	0.2926	0.2782	M 1
	M 2	0.3415	0.3494	0.3493	0.3447	0.3374	M 2
	TURN	-17.41	-19.07	-19.71	-19.59	-19.53	TURN
	UUBAR	0.0987	0.0635	0.0661	0.0639	0.0667	UUBAR
	DFAC	-0.085	-0.030	-0.008	-0.013	-0.040	DFAC
	EFFP	0.8458	0.8697	0.8512	0.8604	0.8775	EFFP
	INCID	-0.0600	-0.2900	0.0800	0.4100	0.7300	INCID
	DEVM	6.540	6.321	7.170	8.425	10.039	DEVM
	P 1	10.097	10.143	10.156	10.142	10.114	P 1
	P 2	10.046	10.106	10.116	10.105	10.079	P 2
	T 1	288.167	288.167	288.167	288.167	288.167	T 1
	T 2	288.167	288.167	288.167	288.167	288.167	T 2
	UUBAR FS						UUBAR FS
	P1 FS						P1 FS
	LOSS PARA FS						LOSS PARA FS
ROTOR	PCT SPAN	90.07	70.43	50.34	30.47	10.16	PCT SPAN
	DIA	0.430	0.462	0.475	0.497	0.520	DIA
ROTOR -L.E.	BETA 2	13.846	15.261	15.868	15.921	15.953	BETA 2
ROTOR -T.E.	BETA 3	47.491	42.455	40.723	40.522	43.065	BETA 3
	BETA(PR) 2	40.531	47.069	48.796	50.873	53.112	BETA(PR) 2
	BETA(PR) 3	6.293	15.920	22.856	28.716	34.554	BETA(PR) 3
	V 2	144.50	146.73	149.48	148.11	145.48	V 2
	V 3	224.14	216.11	206.98	197.84	186.27	V 3
	VZ 2	140.29	143.35	143.35	141.67	138.62	VZ 2
	VZ 3	151.45	154.37	156.61	149.92	135.49	VZ 3
	V-THETA 2	34.58	36.11	40.75	40.41	39.68	V-THETA 2
	V-THETA 3	165.22	145.81	134.61	128.14	126.63	V-THETA 3
	V(PR) 2	208.9	210.6	217.9	229.0	232.0	V(PR) 2
	V(PR) 3	152.4	165.9	170.4	171.7	165.4	V(PR) 3
	VTHETA PR2	-148.0	-154.1	-163.7	-174.2	-185.0	VTHETA PR2
	VTHETA PR3	-16.7	-45.5	-66.0	-82.1	-93.3	VTHETA PR3
	U 2	182.57	193.20	204.48	214.57	224.67	U 2
	U 3	181.92	191.27	200.82	210.27	219.94	U 3
	M 2	0.4325	0.4457	0.4480	0.4437	0.4355	M 2
	M 3	0.6802	0.6384	0.6110	0.5827	0.5459	M 3
	M(PR) 2	0.6104	0.6309	0.6531	0.6742	0.6945	M(PR) 2
	M(PR) 3	0.4488	0.4900	0.5029	0.5056	0.4848	M(PR) 3
	TURN(PR)	40.236	31.132	25.907	22.126	18.553	TURN(PR)
	UUBAR	0.1881	0.0533	0.0191	0.0407	0.1165	UUBAR
	LOSS PARA	0.0671	0.0193	0.0069	0.0148	0.0414	LOSS PARA
	DFAC	0.4819	0.4016	0.3860	0.3952	0.4454	DFAC
	EFFP	0.6446	0.9459	0.9767	0.9497	0.8520	EFFP
	EFF	0.8393	0.9442	0.9760	0.9482	0.8480	EFF
	INCID	-1.512	-1.602	-0.885	-0.050	-0.402	INCID
	DEVM	10.312	9.926	7.738	8.465	13.685	DEVM
	P 2	10.046	10.106	10.116	10.105	10.079	P 2
	P 3	12.083	12.654	12.539	12.384	12.172	P 3
	T 2	288.167	288.167	288.167	288.167	288.167	T 2
	T 3	311.811	308.422	306.850	306.350	306.994	T 3
STATOR	PCT SPAN	90.02	70.31	50.34	30.11	10.14	PCT SPAN
	DIA	0.429	0.448	0.467	0.487	0.506	DIA
STATOR-L.E.	BETA 3	47.169	42.094	40.283	40.140	42.634	BETA 3
STATOR-T.E.	BETA 4	11.011	12.182	13.406	14.842	15.136	BETA 4
	V 3	225.44	217.98	209.36	200.18	188.73	V 3
	V 4	197.20	196.55	194.41	188.83	175.73	V 4
	VZ 3	153.26	161.67	159.49	152.66	138.43	VZ 3
	VZ 4	193.16	194.00	188.90	182.15	169.06	VZ 4
	V-TH TA 3	165.32	146.05	135.17	128.73	127.44	V-THETA 3
	V-TH TA 4	39.69	41.68	45.02	48.27	45.73	V-THETA 4
	M 3	0.6644	0.6444	0.6186	0.5900	0.5535	M 3
	M 4	0.5752	0.5828	0.5714	0.5545	0.5133	M 4
	TURN(PR)	35.555	29.893	26.824	25.213	27.391	TURN(PR)
	UUBAR	0.0413	0.0290	0.0328	0.0341	0.1105	UUBAR
	LOSS PARA	0.0147	0.0107	0.0126	0.0135	0.0454	LOSS PARA
	DFAC	0.3280	0.2714	0.2436	0.2246	0.2574	DFAC
	EFFP	0.8517	0.8559	0.7961	0.7313	0.2615	EFFP
	INCID	2.076	0.700	-0.655	-2.086	-3.755	INCID
	DEVM	19.631	12.517	11.751	13.531	13.944	DEVM
	P 3	12.083	12.654	12.539	12.384	12.172	P 3
	P 4	12.544	12.565	12.446	12.296	11.920	P 4
	T 3	311.811	308.422	306.850	306.350	306.994	T 3
	T 4	311.811	308.422	306.850	306.350	306.994	T 4

Table C-3. Blade Element Performance (Continued)
Stage G, Rotor G - Stator G
Calculated Using Translated Values
Percent Equivalent Rotor Speed = 69.80 Equivalent Rotor Speed = 8094.00 Equivalent Weight Flow = 13.738 kg/sec
Uniform Inlet
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	89.86	69.09	47.80	27.87	9.29	PCT SPAN
	DIA	0.434	0.466	0.496	0.528	0.555	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	17.403	18.835	19.420	19.355	19.344	BETA 2
	V 1	86.70	93.60	95.18	94.31	91.39	V 1
	V 2	110.15	112.41	112.63	111.20	108.87	V 2
	VZ 1	88.68	93.45	94.79	93.65	90.44	VZ 1
	VZ 2	105.09	106.26	105.89	104.34	101.90	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	32.94	36.25	37.33	36.65	35.77	V-THETA 2
	M 1	0.2624	0.2772	0.2819	0.2793	0.2705	M 1
	M 2	0.3271	0.3340	0.3347	0.3303	0.3233	M 2
	TURN	-17.40	-18.81	-19.36	-19.24	-19.18	TURN
	UUBAR	0.0862	0.0511	0.0468	0.0567	0.0810	UUBAR
	DFAC	-0.092	-0.045	-0.025	-0.020	-0.027	DFAC
	EFFP	0.8666	0.8998	0.8987	0.8770	0.8425	EFFP
	INCID	-0.0660	-0.2900	0.0800	0.4100	0.7300	INCID
	DEVM	6.550	6.579	7.524	8.777	10.388	DEVM
	P 1	10.160	10.136	10.149	10.143	10.127	P 1
	P 2	10.059	10.109	10.123	10.112	10.087	P 2
	T 1	288.167	288.167	288.167	288.167	288.167	T 1
	T 2	288.167	288.167	288.167	288.167	288.167	T 2
	UUBAR FS						UUBAR FS
	P1 FS						P1 FS
	LOSS PARA FS						LOSS PARA FS
ROTOR	PCT SPAN	90.07	70.43	50.34	30.47	10.16	PCT SPAN
	DIA	0.430	0.452	0.475	0.497	0.520	DIA
ROTOR -L.E.	BETA 2	15.887	15.117	15.648	15.699	15.731	BETA 2
ROTOR -T.E.	BETA 3	49.748	44.074	42.042	41.885	44.607	BETA 3
	BETA(PR) 2	48.196	48.899	50.535	52.550	54.741	BETA(PR) 2
	BETA(PR) 3	7.306	17.150	23.994	29.312	34.657	BETA(PR) 3
	V 2	138.06	141.76	142.83	141.56	138.98	V 2
	V 3	215.54	209.10	201.57	194.74	185.34	V 3
	VZ 2	134.02	136.72	137.12	135.55	132.76	VZ 2
	VZ 3	139.27	150.16	149.46	144.54	131.40	VZ 3
	V-THETA 2	33.13	36.93	38.41	38.10	37.40	V-THETA 2
	V-THETA 3	164.50	145.38	134.77	129.62	129.61	V-THETA 3
	V(PR) 2	201.1	208.1	216.0	223.4	230.6	V(PR) 2
	V(PR) 3	140.4	157.3	164.0	166.5	160.6	V(PR) 3
	VTHETA PR2	-149.9	-156.7	-166.5	-177.0	-187.8	VTHETA PR2
	VTHETA PR3	-17.9	-46.3	-66.5	-81.2	-90.8	VTHETA PR3
	U 2	183.00	193.65	204.96	215.08	225.19	U 2
	U 3	182.35	191.72	201.30	210.77	220.46	U 3
	M 2	0.4126	0.4240	0.4273	0.4234	0.4154	M 2
	M 3	0.6326	0.6157	0.5934	0.5721	0.5419	M 3
	M(PR) 2	0.6008	0.6223	0.6463	0.6682	0.6893	M(PR) 2
	M(PR) 3	0.4121	0.4631	0.4827	0.4890	0.4697	M(PR) 3
	TURN(PR)	40.887	31.733	26.510	23.211	20.083	TURN(PR)
	UUBAR	0.2178	0.0659	0.0198	0.0333	0.1062	UUBAR
	LOSS PARA	0.0775	0.0237	0.0072	0.0120	0.0377	LOSS PARA
	DFAC	0.5353	0.4389	0.4143	0.4212	0.4728	DFAC
	EFFP	0.8258	0.9360	0.9764	0.9606	0.8748	EFFP
	EFF	0.8200	0.9339	0.9756	0.9594	0.8711	EFF
	INCID	0.153	0.168	0.854	1.630	1.231	INCID
	DEVM	17.325	11.156	8.874	9.058	13.788	DEVM
	P 2	10.059	10.109	10.123	10.112	10.087	P 2
	P 3	12.656	12.680	12.620	12.540	12.392	P 3
	T 2	288.167	288.167	288.167	288.167	288.167	T 2
	T 3	311.994	308.805	307.372	307.211	308.206	T 3
STATOR	PCT SPAN	90.02	70.31	50.34	30.11	10.14	PCT SPAN
	DIA	0.429	0.448	0.467	0.487	0.506	DIA
STATOR-L.E.	BETA 3	49.422	43.714	41.602	41.490	44.160	BETA 3
STATOR-T.E.	BETA 4	11.572	12.358	13.601	15.906	16.919	BETA 4
	V 3	216.72	210.82	203.80	197.01	187.77	V 3
	V 4	182.92	184.26	181.74	176.75	169.49	V 4
	VZ 3	140.96	152.31	152.20	147.23	134.32	VZ 3
	VZ 4	179.20	179.94	176.44	169.64	161.62	VZ 4
	V-THETA 3	164.59	145.62	135.13	130.22	130.44	V-THETA 3
	V-THETA 4	30.69	39.42	42.69	48.34	49.16	V-THETA 4
	M 3	0.6363	0.6211	0.6004	0.5792	0.5494	M 3
	M 4	0.5310	0.5380	0.5315	0.5163	0.4932	M 4
	TURN(PR)	37.848	31.336	27.947	25.501	27.140	TURN(PR)
	UUBAR	0.0212	0.0237	0.0263	0.0454	0.0651	UUBAR
	LOSS PARA	0.0076	0.0088	0.0101	0.0179	0.0265	LOSS PARA
	DFAC	0.3704	0.3179	0.2896	0.2764	0.2860	DFAC
	EFFP	0.9364	0.9136	0.8889	0.7950	0.6879	EFFP
	INCID	4.929	2.319	0.663	-0.737	-2.229	INCID
	DEVM	18.992	12.693	11.946	14.592	15.721	DEVM
	P 3	12.656	12.680	12.620	12.540	12.392	P 3
	P 4	12.592	12.611	12.549	12.424	12.243	P 4
	T 3	311.994	308.805	307.372	307.211	308.206	T 3
	T 4	311.994	308.805	307.372	307.217	308.206	T 4

ORIGINAL PAGE IS OF POOR QUALITY

Table C-3. Blade Element Performance (Continued)
Stage G, Rotor G - Stator G
Calculated Using Translated Values
Percent Equivalent Rotor Speed = 69.86 Equivalent Rotor Speed = 8101.00 Equivalent Weight Flow = 13.009 kg/sec
Uniform Inlet
SI (Metric) Units

INLET GUIDE VANE							
	PCT SPAN	89.66	69.39	47.80	27.87	9.29	PCT SPAN
	DIA	0.434	0.466	0.498	0.528	0.555	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	17.579	16.826	19.492	19.427	19.416	BETA 2
	V 1	83.74	88.80	88.91	87.56	85.37	V 1
	V 2	101.96	104.47	104.63	103.41	101.00	V 2
	VZ 1	83.73	88.66	86.54	86.95	84.49	VZ 1
	VZ 2	97.19	98.77	98.32	96.98	94.49	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	30.79	33.66	34.80	34.20	33.30	V-THETA 2
	M 1	0.2476	0.2628	0.2631	0.2590	0.2525	M 1
	M 2	0.3024	0.3099	0.3104	0.3067	0.2994	M 2
	TURN	-17.58	-16.80	-19.43	-19.31	-19.25	TURN
	UUBAR	0.1084	0.0656	0.0460	0.0435	0.0821	UUBAR
	DFAC	-0.070	-0.024	-0.018	-0.021	-0.020	DFAC
	EFFP	0.8207	0.8580	0.8923	0.9035	0.8337	EFFP
	INCID	-0.0600	-0.2900	0.0800	0.4100	0.7300	INCID
	DEVM	0.374	0.594	7.453	8.705	10.317	DEVM
	P 1	10.106	10.142	10.145	10.135	10.126	P 1
	P 2	10.062	10.111	10.122	10.115	10.089	P 2
	T 1	288.167	288.167	288.167	288.167	288.167	T 1
	T 2	288.167	288.167	288.167	288.167	288.167	T 2
	UUBAR FS						UUBAR FS
	PI FS						PI FS
	LOSS PARA FS						LOSS PARA FS

ROTOR							
	PCT SPAN	90.07	70.43	50.34	30.47	10.16	PCT SPAN
	DIA	0.430	0.452	0.475	0.497	0.520	DIA
ROTOR -L.E.	BETA 2	14.101	15.190	15.797	15.847	15.879	BETA 2
ROTOR -T.E.	BETA 3	53.460	46.504	45.300	45.012	46.177	BETA 3
	BETA(PR) 2	50.980	51.074	53.274	55.122	57.269	BETA(PR) 2
	BETA(PR) 3	5..78	17.508	24.454	29.917	35.337	BETA(PR) 3
	V 2	127.14	131.03	131.93	130.91	128.22	V 2
	V 3	211.26	203.66	195.75	189.87	181.82	V 3
	VZ 2	123.30	126.33	126.56	125.26	122.40	VZ 2
	VZ 3	125.70	140.12	137.50	133.87	120.80	VZ 3
	V-THETA 2	30.97	34.30	35.81	35.56	34.82	V-THETA 2
	V-THETA 3	169.79	147.68	133.44	133.92	135.00	V-THETA 3
	W(PR) 2	145.9	203.6	211.6	219.5	227.0	W(PR) 2
	W(PR) 3	120.4	147.1	151.4	155.1	148.9	W(PR) 3
	VTHETA PR2	-152.2	-159.5	-169.3	-179.7	-190.6	VTHETA PR2
	VTHETA PR3	-12.7	-44.2	-62.5	-77.0	-85.6	VTHETA PR3
	U 2	163.16	193.62	205.13	215.20	225.39	U 2
	U 3	182.91	191.88	201.47	210.95	220.65	U 3
	M 2	0.3789	0.3909	0.3936	0.3905	0.3822	M 2
	M 3	0.6177	0.5975	0.5737	0.5555	0.5294	M 3

	M(PR) 2	0.5838	0.6073	0.6315	0.6547	0.6768	M(PR) 2
	M(PR) 3	0.3694	0.4514	0.4437	0.4537	0.4335	M(PR) 3
	TURN(PR)	45.205	34.100	28.742	25.184	21.960	TURN(PR)
	UUBAR	0.2436	0.0714	0.0434	0.0489	0.1206	UUBAR
	LOSS PARA	0.0869	0.0257	0.0156	0.0175	0.0425	LOSS PARA
	DFAC	0.6084	0.4859	0.4743	0.4755	0.5313	DFAC
	EFFP	0.8254	0.9360	0.9552	0.9482	0.8726	EFFP
	EFF	0.6193	0.9338	0.9537	0.9465	0.8685	EFF
	INCID	2.943	2.894	3.545	4.206	3.786	INCID
	DEVM	15.793	11.514	9.335	9.662	14.466	DEVM
	P 2	10.062	10.111	10.122	10.115	10.089	P 2
	P 3	12.815	12.814	12.749	12.767	12.609	P 3
	T 2	288.167	288.167	288.167	288.167	288.167	T 2
	T 3	313.328	309.778	309.761	309.672	309.983	T 3

STATOR							
	PCT SPAN	90.02	70.31	50.34	30.11	10.14	PCT SPAN
	DIA	0.429	0.448	0.467	0.487	0.506	DIA
STATOR-L.E.	BETA 3	53.120	46.129	44.823	44.603	47.697	BETA 3
STATOR-T.E.	BETA 4	13.157	11.862	14.073	15.976	16.223	BETA 4
	V 3	212.38	205.28	197.88	192.00	184.16	V 3
	V 4	167.10	168.09	166.14	162.15	156.80	V 4
	VZ 3	127.44	142.21	140.18	136.42	123.64	VZ 3
	VZ 4	162.70	164.43	160.54	155.57	150.06	VZ 4
	V-THETA 3	169.89	147.93	139.32	134.54	135.86	V-THETA 3
	V-THETA 4	38.03	34.54	42.04	44.54	43.66	V-THETA 4
	M 3	0.6212	0.6026	0.5804	0.5621	0.5366	M 3
	M 4	0.4817	0.4876	0.4825	0.4705	0.4533	M 4
	TURN(PR)	39.907	34.247	30.098	28.541	31.370	TURN(PR)
	UUBAR	0.0366	0.0331	0.0274	0.0477	0.0021	UUBAR
	LOSS PARA	0.0129	0.0122	0.0105	0.0188	0.0294	LOSS PARA
	DFAC	0.4391	0.3917	0.3568	0.3510	0.3662	DFAC
	EFFP	0.9170	0.9087	0.9185	0.8527	0.7981	EFFP
	INCID	8.633	4.735	3.884	2.375	1.308	INCID
	DEVM	20.576	12.196	13.017	14.664	15.028	DEVM
	P 3	12.815	12.814	12.749	12.707	12.609	P 3
	P 4	12.707	12.722	12.678	12.590	12.489	P 4
	T 3	313.328	309.778	308.761	308.672	309.983	T 3
	T 4	313.328	309.811	308.761	308.672	309.983	T 4

Table C-3. Blade Element Performance (Continued)
Stage G, Rotor G - Stator G
Calculated Using Translated Values
Percent Equivalent Rotor Speed = 69.78 Equivalent Rotor Speed = 8092.00 Equivalent Weight Flow = 12.302 kg/sec
Uniform Inlet
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	89.86	69.09	47.80	27.87	9.29	PCT SPAN
	DIA	0.434	0.466	0.498	0.528	0.555	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	17.216	18.402	19.381	19.512	19.502	BETA 2
	V 1	77.12	84.26	85.08	83.83	79.38	V 1
	V 2	96.42	99.16	99.32	97.92	95.76	V 2
	VZ 1	77.11	84.12	84.73	83.24	78.56	VZ 1
	VZ 2	92.09	93.07	93.40	91.79	89.54	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	28.53	31.26	32.86	32.52	31.71	V-THETA 2
	M 1	0.2278	0.2491	0.2516	0.2479	0.2345	M 1
	M 2	0.2857	0.2939	0.2944	0.2902	0.2837	M 2
	TURN	-17.21	-18.38	-19.32	-19.40	-19.24	TURN
	UUBAR	0.0984	0.0726	0.0696	0.0782	0.0764	UUBAR
	DFAC	-0.101	-0.028	-0.011	-0.009	-0.039	DFAC
	EFFP	0.8542	0.8449	0.8428	0.8271	0.8595	EFFP
	INCID	-0.6600	-0.2900	0.0800	0.4100	0.7300	INCID
	DEVM	6.736	7.011	7.563	8.620	10.231	DEVM
	P 1	10.097	10.142	10.151	10.143	10.139	P 1
	P 2	10.062	10.111	10.120	10.110	10.090	P 2
	T 1	288.167	288.167	288.167	288.167	288.167	T 1
	T 2	288.167	288.167	288.167	288.167	288.167	T 2
	UUBAR FS						UUBAR FS
	P1 FS						P1 FS
	LOSS PARA FS						LOSS PARA FS
ROTOR	PCT SPAN	90.07	70.43	50.34	30.47	10.16	PCT SPAN
	DIA	0.430	0.452	0.475	0.497	0.520	DIA
ROTOR -L.E.	BETA 2	13.859	14.906	15.762	15.972	16.004	BETA 2
ROTOR -T.E.	BETA 3	55.254	48.386	47.206	47.152	52.040	BETA 3
	BETA(PR) 2	52.975	53.504	55.009	56.900	58.949	BETA(PR) 2
	BETA(PR) 3	5.154	17.253	24.180	29.728	36.109	BETA(PR) 3
	V 2	119.84	123.96	124.82	123.53	121.16	V 2
	V 3	208.81	201.01	193.98	188.36	178.71	V 3
	VZ 2	116.34	119.67	119.77	118.13	115.59	VZ 2
	VZ 3	119.00	133.44	131.61	127.78	109.59	VZ 3
	V-THETA 2	28.70	31.85	33.80	33.81	33.15	V-THETA 2
	V-THETA 3	171.57	150.73	142.15	137.75	140.47	V-THETA 3
	V(PR) 2	193.2	201.3	209.1	216.7	224.6	V(PR) 2
	V(PR) 3	119.5	139.8	144.6	147.7	136.4	V(PR) 3
	VTHETA PR2	-154.2	-161.8	-171.1	-181.2	-192.0	VTHETA PR2
	VTHETA PR3	-10.7	-41.4	-59.1	-73.0	-79.9	VTHETA PR3
	U 2	182.95	193.61	204.91	215.02	225.14	U 2
	U 3	182.31	191.67	201.25	210.72	220.40	U 3
	M 2	0.3566	0.3692	0.3718	0.3679	0.3606	M 2
	M 3	0.6092	0.5882	0.5672	0.5497	0.5185	M 3
	M(PR) 2	0.5750	0.5995	0.6228	0.6453	0.6685	M(PR) 2
	M(PR) 3	0.3486	0.4092	0.4228	0.4312	0.3957	M(PR) 3
	TURN(PR)	47.618	36.236	30.803	27.154	22.857	TURN(PR)
	UUBAR	0.2413	0.0764	0.0407	0.0464	0.1493	UUBAR
	LOSS PARA	0.0862	0.0275	0.0147	0.0167	0.0521	LOSS PARA
	DFAC	0.6461	0.5252	0.5102	0.5132	0.5956	DFAC
	EFFP	0.8356	0.9357	0.9607	0.9546	0.8549	EFFP
	EFF	0.8296	0.9334	0.9593	0.9530	0.8500	EFF
	INCID	4.932	4.775	5.332	5.988	5.452	INCID
	DEVM	15.174	11.259	9.059	9.474	15.235	DEVM
	P 2	10.062	10.111	10.120	10.110	10.090	P 2
	P 3	12.941	12.934	12.908	12.879	12.740	P 3
	T 2	288.167	288.167	288.167	288.167	288.167	T 2
	T 3	314.055	310.711	309.789	309.822	311.528	T 3
STATOR	PCT SPAN	90.02	70.31	50.34	30.11	10.14	PCT SPAN
	DIA	0.429	0.448	0.467	0.487	0.506	DIA
STATOR-L.E.	BETA 3	54.878	47.994	46.714	46.720	51.518	BETA 3
STATOR-T.E.	BETA 4	14.819	11.834	14.275	15.919	16.190	BETA 4
	V 3	209.89	202.58	196.03	190.46	180.98	V 3
	V 4	156.61	157.65	156.04	152.55	148.32	V 4
	VZ 3	120.75	135.52	134.25	130.32	112.37	VZ 3
	VZ 4	151.39	154.23	151.05	146.40	141.97	VZ 4
	V-THETA 3	171.67	150.48	142.54	138.39	141.36	V-THETA 3
	V-THETA 4	40.05	32.32	38.43	41.75	41.22	V-THETA 4
	M 3	0.6126	0.5931	0.5736	0.5562	0.5254	M 3
	M 4	0.4497	0.4553	0.4512	0.4406	0.4268	M 4
	TURN(PR)	40.057	36.141	32.386	30.717	35.227	TURN(PR)
	UUBAR	0.0480	0.0444	0.0480	0.0683	0.0529	UUBAR
	LOSS PARA	0.0168	0.0165	0.0183	0.0269	0.0216	LOSS PARA
	DFAC	0.4820	0.4440	0.4160	0.4104	0.4206	DFAC
	EFFP	0.9057	0.9013	0.8844	0.8303	0.8551	EFFP
	INCID	10.385	6.600	5.775	4.492	5.133	INCID
	DEVM	22.239	12.169	12.619	14.605	14.995	DEVM
	P 3	12.941	12.939	12.908	12.879	12.740	P 3
	P 4	12.802	12.818	12.784	12.712	12.625	P 4
	T 3	314.055	310.711	309.789	309.822	311.528	T 3
	T 4	314.055	310.711	309.789	309.822	311.528	T 4

Table C-3. Blade Element Performance (Continued)
Stage G, Rotor G - Stator G
Calculated Using Translated Values
Percent Equivalent Rotor Speed = 69.78 Equivalent Rotor Speed = 8092.00 Equivalent Weight Flow = 11.384 kg/sec
Uniform Inlet
SI (Metric) Units

INLET GUIDE VANE	PCT SPAN	89.86	69.09	47.80	27.87	9.29	PCT SPAN
	DIA	0.434	0.466	0.498	0.528	0.555	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	16.996	18.728	19.223	19.160	19.152	BETA 2
	V 1	72.66	78.23	77.82	75.98	73.07	V 1
	V 2	88.94	91.88	91.81	90.66	88.76	V 2
	VZ 1	72.64	78.10	77.50	75.45	72.31	VZ 1
	VZ 2	85.04	86.91	86.42	85.16	83.17	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	25.99	29.46	30.13	29.59	28.88	V-THETA 2
	M 1	0.2145	0.2311	0.2299	0.2244	0.2157	M 1
	M 2	0.2632	0.2720	0.2716	0.2683	0.2626	M 2
	TURN	-16.99	-16.70	-19.16	-19.05	-18.99	TURN
	UUBAR	0.1559	0.0970	0.0773	0.0677	0.0792	UUBAR
	DFAC	-0.080	-0.023	-0.023	-0.034	-0.049	DFAC
	EFFP	0.7623	0.8004	0.8364	0.8657	0.8599	EFFP
	INCID	-0.6600	-0.2900	0.0800	0.4100	0.7300	INCID
	DEVM	6.957	6.666	7.721	8.971	10.579	DEVM
	P 1	10.112	10.140	10.144	10.133	10.120	P 1
	P 2	10.067	10.110	10.116	10.110	10.095	P 2
	T 1	288.167	288.167	288.167	288.167	288.167	T 1
	T 2	288.167	288.167	288.167	288.167	288.167	T 2
	UUBAR FS						UUBAR FS
	PI FS						PI FS
	LOSS PARA FS						LOSS PARA FS
ROTOR	PCT SPAN	90.07	70.43	50.34	30.47	10.16	PCT SPAN
	DIA	0.436	0.452	0.475	0.497	0.520	DIA
ROTOR -L.E.	BETA 2	13.735	15.228	15.763	15.753	15.780	BETA 2
ROTOR -T.E.	BETA 3	50.331	51.512	49.670	49.565	55.996	BETA 3
	BETA(PR) 2	55.700	56.013	57.622	59.383	61.274	BETA(PR) 2
	BETA(PR) 3	4.107	10.008	23.790	29.731	36.556	BETA(PR) 3
	V 2	110.13	114.41	114.89	113.91	111.87	V 2
	V 3	209.05	199.75	192.33	186.65	177.68	V 3
	VZ 2	100.97	110.26	110.27	109.05	106.84	VZ 2
	VZ 3	115.89	124.82	124.32	120.76	99.11	VZ 3
	V-THETA 2	20.14	30.02	31.00	30.76	30.19	V-THETA 2
	V-THETA 3	173.59	155.86	140.44	141.74	146.91	V-THETA 3
	V(PR) 2	189.8	197.4	206.1	214.4	222.7	V(PR) 2
	V(PR) 3	116.2	130.0	136.2	139.7	174.0	V(PR) 3
	VTHETA PR2	-136.6	-163.6	-173.9	-184.3	-194.9	VTHETA PR2
	VTHETA PR3	-8.3	-35.8	-54.8	-69.0	-73.5	VTHETA PR3
	U 2	182.55	193.61	204.91	215.02	225.14	U 2
	U 3	182.31	191.67	201.25	210.72	220.40	U 3
	M 2	0.3271	0.3401	0.3415	0.3386	0.3324	M 2
	M 3	0.6090	0.5829	0.5607	0.5430	0.5136	M 3
	M(PR) 2	0.3036	0.3866	0.4127	0.4373	0.4617	M(PR) 2
	M(PR) 3	0.3385	0.3792	0.3971	0.4063	0.3565	M(PR) 3
	TURN(PR)	51.540	39.990	33.808	29.041	24.745	TURN(PR)
	UUBAR	0.2222	0.0788	0.0574	0.0441	0.1854	UUBAR
	LOSS PARA	0.0795	0.0350	0.0207	0.0230	0.0643	LOSS PARA
	DFAC	0.0865	0.5801	0.5575	0.5593	0.0657	DFAC
	EFFP	0.8569	0.9271	0.9511	0.9423	0.8368	EFFP
	EFF	0.9530	0.9243	0.9493	0.9401	0.8310	EFF
	INCID	7.057	7.285	7.948	8.478	7.787	INCID
	DEVM	14.126	10.014	8.070	9.477	15.682	DEVM
	P 2	10.062	10.110	10.116	10.110	10.095	P 2
	P 3	13.145	13.100	13.066	13.044	12.929	P 3
	T 2	288.167	288.167	288.167	288.167	288.167	T 2
	T 3	314.972	312.117	311.189	311.311	313.572	T 3
STATOR	PCT SPAN	90.02	70.31	50.34	30.11	10.14	PCT SPAN
	DIA	0.429	0.448	0.467	0.487	0.506	DIA
STATOR-L.E.	BETA 3	55.941	50.883	49.143	49.106	55.415	BETA 3
STATOR-T.E.	BETA 4	17.669	14.35[illegible]	14.732	16.572	18.961	BETA 4
	V 3	219.14	201.[illegible]	194.34	188.70	174.91	V 3
	V 4	144.40	146.[illegible]	145.70	143.03	140.24	V 4
	VZ 3	117.68	120.95	127.00	123.32	101.94	VZ 3
	VZ 4	134.08	142.53	140.75	136.81	132.20	VZ 4
	V-THETA 3	179.09	156.12	146.83	142.39	147.85	V-THETA 3
	V-THETA 4	43.98	36.43	37.01	40.71	45.42	V-THETA 4
	M 3	0.6124	0.5877	0.5669	0.5494	0.5204	M 3
	M 4	0.4142	0.4224	0.4192	0.4112	0.4014	M 4
	TURN(PR)	38.271	36.510	34.360	32.452	30.368	TURN(PR)
	UUBAR	0.1074	0.0830	0.0834	0.0985	0.0792	UUBAR
	LOSS PARA	0.0371	0.0304	0.0318	0.0387	0.0319	LOSS PARA
	DFAC	0.5358	0.4964	0.4758	0.4604	0.4678	DFAC
	EFFP	0.8206	0.8430	0.8305	0.7922	0.8173	EFFP
	INCID	11.449	9.469	8.204	8.880	9.036	INCID
	DEVM	25.068	14.689	13.074	15.257	17.757	DEVM
	P 3	13.145	13.100	13.066	13.044	12.929	P 3
	P 4	12.674	12.873	12.652	12.805	12.756	P 4
	T 3	314.972	312.117	311.189	311.311	313.572	T 3
	T 4	314.972	312.117	311.189	311.311	313.572	T 4

Table C-4. Blade Element Performance (Continued)
Stage G, Rotor G - Stator G
Calculated Using Translated Values
Percent Equivalent Rotor Speed = 99.57 Equivalent Rotor Speed = 11546.0 Equivalent Weight Flow = 40.288 lb/sec
Uniform Inlet
U.S. Customary Units

INLET GUIDE VANE	PCT SPAN	89.86	69.09	47.80	27.87	9.29	PCT SPAN
	DIA	17.100	18.330	19.590	20.770	21.870	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	18.118	19.582	19.957	19.889	19.864	BETA 2
	V 1	[illegible]2	422.45	422.76	418.43	405.75	V 1
	V 2	5[illegible].94	510.69	510.05	505.49	495.11	V 2
	VZ 1	408.95	421.76	421.02	415.47	401.56	VZ 1
	VZ 2	479.83	480.56	477.90	472.71	461.92	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	157.00	170.95	173.54	171.01	166.88	V-THETA 2
	M 1	0.3714	0.3839	0.3842	0.3802	0.3683	M 1
	M 2	0.4618	0.4673	0.4667	0.4623	0.4525	M 2
	TURN	-18.12	-19.56	-19.89	-19.77	-19.70	TURN
	UUBAR	0.0918	0.0539	0.0397	0.0318	0.0593	UUBAR
	DFAC	-0.080	-0.046	-0.040	-0.041	-0.048	DFAC
	EFFP	0.8589	0.9016	0.9248	0.9392	0.8979	EFFP
	INCID	-0.6600	-0.2900	0.0800	0.4100	0.7300	INCID
	DEVM	5.835	5.833	6.988	8.246	9.872	DEVM
	P 1	14.658	14.717	14.723	14.705	14.667	P 1
	P 2	14.536	14.640	14.666	14.660	14.590	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	518.700	518.700	518.700	518.700	518.700	T 2
	UUBAR FS						UUBAR FS
	P1 FS						P1 FS
	LOSS PARA FS						LOSS PARA FS
ROTOR	PCT SPAN	90.07	70.43	50.34	30.47	10.16	PCT SPAN
	DIA	16.940	17.810	18.700	19.580	20.480	DIA
ROTOR -L.E.	BETA 2	13.753	14.899	15.224	15.270	15.334	BETA 2
ROTOR -T.E.	BETA 3	44.785	41.650	38.732	37.021	39.415	BETA 3
	BETA(PR) 2	47.271	48.197	49.955	51.844	54.118	BETA(PR) 2
	BETA(PR) 3	8.830	16.192	23.789	29.978	35.767	BETA(PR) 3
	V 2	664.35	678.13	682.01	678.65	664.73	V 2
	V 3	1047.58	1018.32	973.36	931.50	870.[illegible]2	V 3
	VZ 2	645.24	654.68	656.10	651.17	636.22	VZ 2
	VZ 3	743.49	760.53	757.99	741.14	669.01	VZ 3
	V-THETA 2	157.92	174.18	178.55	177.77	174.46	V-THETA 2
	V-THETA 3	737.93	676.41	607.95	558.91	549.83	V-THETA 3
	V(PR) 2	951.0	982.6	1021.1	1056.3	1088.5	V(PR) 2
	V(PR) 3	752.5	792.6	830.3	859.1	829.0	V(PR) 3
	VTHETA PR2	-698.5	-732.1	-780.7	-828.8	-879.5	VTHETA PR2
	VTHETA PR3	-115.5	-220.8	-334.1	-427.5	-481.9	VTHETA PR3
	U 2	856.44	906.32	959.21	1006.57	1053.93	U 2
	U 3	853.42	897.25	942.09	986.42	1031.76	U 3
	M 2	0.6173	0.6311	0.6350	0.6316	0.6177	M 2
	M 3	0.9466	0.9225	0.8821	0.8427	0.7789	M 3
	M(PR) 2	0.8836	0.9145	0.9508	0.9832	1.0115	M(PR) 2
	M(PR) 3	0.6799	0.7180	0.7525	0.7772	0.7420	M(PR) 3
	TURN(PR)	38.439	31.988	26.135	21.840	18.350	TURN(PR)
	UUBAR	0.3056	0.2027	0.1429	0.1362	0.2316	UUBAR
	LOSS PARA	0.1083	0.0734	0.0517	0.0488	0.0811	LOSS PARA
	DFAC	0.4269	0.3844	0.3503	0.3330	0.3843	DFAC
	EFFP	0.7477	0.8108	0.8431	0.8324	0.7047	EFFP
	EFF	0.7336	0.8003	0.8350	0.8244	0.6925	EFF
	INCID	-0.772	-0.534	0.274	0.923	0.606	INCID
	DEVM	18.849	10.199	8.669	9.723	14.895	DEVM
	P 2	14.536	14.640	14.666	14.660	14.590	P 2
	P 3	21.371	21.448	20.978	20.367	19.414	P 3
	T 2	518.700	518.700	518.700	518.700	518.700	T 2
	T 3	601.000	593.410	585.590	580.670	582.400	T 3
STATOR	PCT SPAN	90.02	70.31	50.34	30.11	10.14	PCT SPAN
	DIA	16.880	17.630	18.390	19.160	19.920	DIA
STATOR-L.E.	BETA 3	42.543	39.087	37.132	35.944	38.514	BETA 3
STATOR-T.E.	BETA 4	18.479	16.433	15.230	15.631	16.801	BETA 4
	V 3	1092.08	1075.17	1011.37	959.13	891.65	V 3
	V 4	886.92	909.45	894.61	866.72	827.00	V 4
	VZ 3	804.58	834.10	805.08	774.41	695.30	VZ 3
	VZ 4	841.16	871.97	862.23	832.95	789.09	VZ 4
	V-THETA 3	738.36	677.55	609.58	561.49	553.34	V-THETA 3
	V-THETA 4	281.11	257.18	234.75	233.05	238.26	V-THETA 4
	M 3	0.9946	0.9836	0.9222	0.8714	0.8005	M 3
	M 4	0.7818	0.8100	0.8011	0.7767	0.7359	M 4
	TURN(PR)	24.062	22.636	21.853	20.234	21.615	TURN(PR)
	UUBAR	0.1486	0.0778	0.0605	0.0678	0.0912	UUBAR
	LOSS PARA	0.0512	0.0282	0.0230	0.0268	0.0372	LOSS PARA
	DFAC	0.3403	0.3035	0.2639	0.2397	0.2270	DFAC
	EFFP	0.6838	0.8050	0.7961	0.7210	0.4863	EFFP
	INCID	-1.950	-2.307	-3.804	-6.278	-7.871	INCID
	DEVM	25.898	16.767	13.573	14.318	15.604	DEVM
	P 3	21.371	21.448	20.978	20.367	19.414	P 3
	P 4	19.884	20.677	20.441	19.828	18.804	P 4
	T 3	601.000	593.410	585.590	580.670	582.400	T 3
	T 4	601.000	593.410	585.590	580.670	582.400	T 4

ORIGINAL PAGE IS OF POOR QUALITY

Table C-4. Blade Element Performance (Continued)
Stage G, Rotor G - Stator G
Calculated Using Translated Values
Percent Equivalent Rotor Speed = 99.63 Equivalent Rotor Speed = 11553.00 Equivalent Weight Flow = 39.593 lb/sec
Uniform Inlet
U.S. Customary Units

INLET GUIDE VANE							
	PCT SPAN	89.86	69.09	47.80	27.87	9.29	PCT SPAN
	DIA	17.100	18.330	19.590	20.770	21.870	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	17.003	19.128	19.726	19.766	19.848	BETA 2
	V 1	403.31	413.62	413.89	409.61	396.93	V 1
	V 2	498.74	504.93	503.62	498.06	489.78	V 2
	VZ 1	403.23	412.94	412.18	406.71	392.83	VZ 1
	VZ 2	475.16	478.46	472.56	466.12	456.99	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	151.30	165.25	169.44	167.50	164.96	V-THETA 2
	M 1	0.3660	0.3757	0.3759	0.3719	0.3601	M 1
	M 2	0.4559	0.4618	0.4606	0.4553	0.4474	M 2
	TURN	-17.66	-19.10	-19.66	-19.65	-19.68	TURN
	UUBAR	0.0994	0.0516	0.0434	0.0436	0.0545	UUBAR
	DFAC	-0.086	-0.060	-0.051	-0.048	-0.060	DFAC
	EFFP	0.8499	0.9103	0.9220	0.9213	0.9107	EFFP
	INCID	-0.0600	-0.2900	0.0800	0.4100	0.7300	INCID
	DEVM	6.290	8.287	7.219	8.368	9.888	DEVM
	P 1	14.669	14.715	14.720	14.702	14.665	P 1
	P 2	14.541	14.644	14.660	14.643	14.597	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	518.700	518.700	518.700	518.700	518.700	T 2
	UUBAR FS						UUBAR FS
	P1 FS						P1 FS
	LOSS PARA FS						LOSS PARA FS

ROTOR							
	PCT SPAN	90.07	70.43	50.34	30.47	10.16	PCT SPAN
	DIA	16.940	17.810	18.700	19.580	20.480	DIA
ROTOR -L.E.	BETA 2	13.456	14.607	15.109	15.245	15.369	BETA 2
ROTOR -T.E.	BETA 3	51.748	46.916	44.708	44.623	49.176	BETA 3
	BETA(PR) 2	47.933	48.820	50.576	52.514	54.578	BETA(PR) 2
	BETA(PR) 3	4.974	15.158	22.815	29.429	34.583	BETA(PR) 3
	V 2	654.09	666.30	670.87	665.78	655.61	V 2
	V 3	1017.63	981.17	941.69	909.92	858.05	V 3
	VZ 2	636.07	646.04	645.73	638.90	627.39	VZ 2
	VZ 3	630.01	669.93	668.30	645.84	558.97	VZ 3
	V-THETA 2	152.19	168.37	174.33	174.12	172.45	V-THETA 2
	V-THETA 3	799.11	716.30	661.53	637.40	647.02	V-THETA 3
	V(PR) 2	949.4	981.7	1018.1	1052.1	1085.5	V(PR) 2
	V(PR) 3	852.4	694.7	720.8	737.5	682.7	V(PR) 3
	VTHETA PR2	-704.8	-738.5	-785.5	-833.1	-882.1	VTHETA PR2
	VTHETA PR3	-54.8	-181.5	-281.1	-349.6	-385.4	VTHETA PR3
	U 2	856.96	906.87	959.80	1007.18	1054.57	U 2
	U 3	853.94	897.79	942.66	987.02	1032.39	U 3
	M 2	0.6071	0.6213	0.6238	0.6187	0.6086	M 2
	M 3	0.9365	0.8775	0.8417	0.8099	0.7545	M 3
	M(PR) 2	0.8812	0.9126	0.9466	0.9778	1.0076	M(PR) 2
	M(PR) 3	0.5634	0.6213	0.6496	0.6564	0.6003	M(PR) 3
	TURN(PR)	42.957	33.644	27.726	24.056	19.993	TURN(PR)
	UUBAR	0.2323	0.0944	0.0361	0.0544	0.1045	UUBAR

	LOSS PARA	0.0830	0.0345	0.0131	0.0198	0.0604	LOSS PARA
	DFAC	0.5776	0.5011	0.4724	0.4779	0.5503	DFAC
	EFFP	0.8304	0.9267	0.9654	0.9466	0.9312	EFFP
	EFF	0.8167	0.9153	0.9631	0.9431	0.9209	EFF
	INCID	-0.110	0.090	0.895	1.594	1.068	INCID
	DEVM	14.993	9.165	7.697	8.178	13.714	DEVM
	P 2	14.541	14.644	14.660	14.643	14.597	P 2
	P 3	23.355	23.455	23.270	22.967	22.237	P 3
	T 2	518.700	518.700	518.700	518.700	518.700	T 2
	T 3	610.550	600.340	594.700	594.170	599.460	T 3

STATOR							
	PCT SPAN	90.02	70.31	50.34	30.11	10.14	PCT SPAN
	DIA	16.880	17.630	18.390	19.160	19.920	DIA
STATOR-L.E.	BETA 3	50.291	45.574	43.370	43.544	48.092	BETA 3
STATOR-T.E.	BETA 4	14.453	13.940	15.878	17.014	18.419	BETA 4
	V 3	1039.41	1005.11	967.15	931.51	877.13	V 3
	V 4	714.73	728.04	712.90	688.62	657.55	V 4
	VZ 3	664.09	703.27	702.16	673.74	584.41	VZ 3
	VZ 4	696.92	706.31	684.94	657.12	628.65	VZ 4
	V-THETA 3	799.56	717.51	663.30	640.34	651.15	V-THETA 3
	V-THETA 4	179.65	175.39	194.82	201.14	185.25	V-THETA 4
	M 3	0.9293	0.9024	0.8678	0.8317	0.7733	M 3
	M 4	0.6163	0.6297	0.6187	0.5984	0.5650	M 4
	TURN(PR)	35.836	31.609	27.441	26.443	31.571	TURN(PR)
	UUBAR	0.0533	0.0497	0.0565	0.0707	0.0527	UUBAR
	LOSS PARA	0.0187	0.0183	0.0214	0.0277	0.0215	LOSS PARA
	DFAC	0.5246	0.4812	0.4564	0.4573	0.4608	DFAC
	EFFP	0.9235	0.9210	0.9049	0.8773	0.8958	EFFP
	INCID	5.798	4.180	2.431	1.310	1.704	INCID
	DEVM	21.872	14.280	14.220	15.704	15.223	DEVM
	P 3	23.355	23.455	23.270	22.967	22.237	P 3
	P 4	22.823	22.977	22.760	22.374	21.855	P 4
	T 3	610.550	600.340	594.700	594.170	599.460	T 3
	T 4	610.550	600.340	594.700	594.170	599.700	T 4

Table C-4. Blade Element Performance (Continued)
Stage G, Rotor G - Stator G
Calculated Using Translated Values
Percent Equivalent Rotor Speed = 99.72 Equivalent Rotor Speed =11563.00 Equivalent Weight Flow = 38.721 lb/sec
Uniform Inlet
U.S. Customary Units

INLET GUIDE VANE						
I.G.V.-L.E.	PCT SPAN	89.86	64.09	47.80	27.87	9.29	PCT SPAN
I.G.V.-T.E.	DIA	17.100	18.330	19.590	20.770	21.870	DIA
	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
	BETA 2	17.842	19.189	19.587	19.731	19.676	BETA 2
	V 1	389.62	401.92	406.44	405.06	387.16	V 1
	V 2	384.80	400.92	490.29	485.67	476.69	V 2
	VZ 1	385.54	401.27	404.77	402.20	383.16	VZ 1
	VZ 2	401.42	463.08	460.45	454.62	445.25	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	148.51	161.16	163.84	163.06	156.21	V-THETA 2
	M 1	0.3496	0.3648	0.3690	0.3677	0.3510	M 1
	M 2	0.4427	0.4485	0.4479	0.4435	0.4350	M 2
	TURN	-17.84	-19.16	-19.52	-19.62	-19.51	TURN
	UUBAR	0.0847	0.0375	0.0412	0.0454	0.0477	UUBAR
	DFAC	-0.102	-0.060	-0.043	-0.034	-0.059	DFAC
	EFFP	0.9050	0.9332	0.9217	0.9113	0.9206	EFFP
	INCID	-0.0600	-0.2900	0.0800	0.4100	0.7300	INCID
	DEVM	0.111	6.228	7.357	8.403	10.058	DEVM
	P 1	14.640	14.707	14.730	14.724	14.668	P 1
	P 2	14.563	14.659	14.676	14.665	14.611	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	518.700	518.700	518.700	518.700	518.700	T 2
	UUBAR FS						UUBAR FS
	P1 FS						P1 FS
	LOSS PARA FS						LOSS PARA FS

ROTOR						
ROTOR -L.E.	PCT SPAN	93.07	70.43	50.34	30.47	10.16	PCT SPAN
ROTOR -T.E.	DIA	16.940	17.810	18.700	19.580	20.480	DIA
	BETA 2	13.683	14.763	15.115	15.322	15.347	BETA 2
	BETA 3	50.831	50.613	48.166	47.920	52.754	BETA 3
	BETA(PR) 2	49.098	50.032	51.763	53.581	55.700	BETA(PR) 2
	BETA(PR) 3	4.655	16.483	23.700	29.166	35.463	BETA(PR) 3
	V 2	631.59	645.04	648.44	644.92	633.68	V 2
	V 3	969.48	935.73	910.21	887.19	844.54	V 3
	VZ 2	613.61	623.12	624.12	618.66	606.47	VZ 2
	VZ 3	530.40	593.55	606.32	593.10	509.61	VZ 3
	V-THETA 2	144.39	164.20	168.57	169.50	166.44	V-THETA 2
	V-THETA 3	811.49	722.95	677.32	656.87	670.27	V-THETA 3
	V(PR) 2	937.2	970.5	1009.7	1044.2	1079.0	V(PR) 2	
	V(PR) 3	532.2	619.5	663.7	682.6	629.1	V(PR) 3
	VTHETA PR2	-708.3	[illegible]3.5	-792.1	-838.6	-889.0	VTHETA PR2
	VTHETA PR3	-43.2	[illegible]5.6	-206.2	-331.0	-363.0	VTHETA PR3
	U 2	657.70	907.65	960.63	1008.05	1055.48	U 2
	U 3	854.68	848.57	943.47	987.67	1033.28	U 3
	M 2	0.5847	0.5981	0.6014	0.5979	0.5868	M 2
	M 3	0.8553	0.8297	0.8070	0.7841	0.7380	M 3
	M(PR) 2	0.6676	0.8998	0.9365	0.9681	0.9992	M(PR) 2
	M(PR) 3	0.4695	0.5493	0.5885	0.6028	0.5497	M(PR) 3
	TURN(PR)	44.441	33.533	28.032	24.390	20.240	TURN(PR)
	UUBAR	0.2745	0.1130	0.0413	0.0409	0.1464	UUBAR

8054641

	LOSS PARA	0.0981	0.0408	0.0149	0.0148	0.0515	LOSS PARA
	DFAC	0.0849	0.5769	0.5388	0.5365	0.6150	DFAC
	EFFP	0.8064	0.9067	0.9613	0.9617	0.8671	EFFP
	EFF	0.7932	0.9003	0.9586	0.9591	0.8582	EFF
	INCID	1.055	1.302	2.083	2.663	2.192	INCID
	DEVM	14.674	10.489	8.580	8.913	14.592	DEVM
	P 2	14.563	14.659	14.676	14.665	14.611	P 2
	P 3	23.316	23.540	23.723	23.710	23.239	P 3
	T 2	518.700	518.700	518.700	518.700	518.700	T 2
	T 3	612.830	602.190	598.280	598.280	604.390	T 3

STATOR						
STATOR-L.E.	PCT SPAN	90.02	70.31	50.34	30.11	10.14	PCT SPAN
STATOR-T.E.	DIA	16.880	17.630	18.390	19.160	19.920	DIA
	BETA 3	55.800	49.552	46.990	46.884	51.632	BETA 3
	BETA 4	14.487	13.874	15.922	17.174	15.846	BETA 4
	V 3	981.76	951.94	929.80	905.75	862.21	V 3
	V 4	660.30	676.14	677.92	665.85	643.21	V 4
	VZ 3	551.81	617.36	633.53	617.87	534.04	VZ 3
	VZ 4	639.28	656.16	651.19	634.87	616.70	VZ 4
	V-THETA 3	811.97	724.16	679.13	659.90	674.55	V-THETA 3
	V-THETA 4	165.18	162.07	185.76	196.21	175.05	V-THETA 4
	M 3	0.8678	0.8461	0.8268	0.8026	0.7551	M 3
	M 4	0.5610	0.5807	0.5844	0.5733	0.5496	M 4
	TURN(PR)	41.311	35.659	31.017	29.628	35.684	TURN(PR)
	UUBAR	0.0524	0.0469	0.0588	0.0777	0.0727	UUBAR
	LOSS PARA	0.0184	0.0172	0.0223	0.0304	0.0298	LOSS PARA
	DFAC	0.5671	0.5147	0.4827	0.4781	0.5052	DFAC
	EFFP	0.9259	0.9262	0.9012	0.8647	0.8659	EFFP
	INCID	11.308	8.158	6.051	4.656	5.246	INCID
	DEVM	21.907	14.209	14.264	15.858	14.652	DEVM
	P 3	23.316	23.540	23.723	23.710	23.239	P 3
	P 4	22.842	23.127	23.220	23.073	22.707	P 4
	T 3	612.830	602.190	598.280	598.280	604.390	T 3
	T 4	612.830	602.190	598.280	598.280	604.390	T 4

Table C-4. Blade Element Performance (Continued)
Stage G, Rotor G - Stator G
Calculated Using Translated Values
Percent Equivalent Rotor Speed = 99.47 Equivalent Rotor Speed =11535.00 Equivalent Weight Flow = 37.428 lb/sec
Uniform Inlet
U.S. Customary Units

INLET GUIDE VANE	PCT SPAN	89.86	69.09	47.80	27.87	9.29	PCT SPAN
	DIA	17.100	18.330	19.590	20.770	21.870	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	17.451	18.986	19.209	19.463	19.655	BETA 2
	V 1	374.98	385.90	388.33	385.50	374.91	V 1
	V 2	461.97	469.63	469.84	464.74	455.74	V 2
	VZ 1	374.90	385.27	386.73	382.78	371.04	VZ 1
	VZ 2	440.65	443.53	442.26	435.75	425.74	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	138.52	152.60	154.09	153.99	152.06	V-THETA 2
	M 1	0.3397	0.3498	0.3521	0.3495	0.3397	M 1
	M 2	0.4211	0.4283	0.4285	0.4237	0.4152	M 2
	TURN	-17.45	-18.98	-19.15	-19.35	-19.49	TURN
	UUBAR	0.0934	0.0407	0.0309	0.0373	0.0619	UUBAR
	DFAC	-0.083	-0.058	-0.049	-0.042	-0.046	DFAC
	EFFP	0.8540	0.9261	0.9408	0.9279	0.8906	EFFP
	INCID	-0.0600	-0.2900	0.0800	0.4100	0.7300	INCID
	DFVM	0.502	0.428	7.734	8.670	10.080	DEVM
	P 1	14.660	14.705	14.718	14.707	14.679	P 1
	P 2	14.555	14.657	14.681	14.663	14.609	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	518.700	518.700	518.700	518.700	518.700	T 2
	UUBAR FS						UUBAR FS
	P1 FS						P1 FS
	LOSS PARA FS						LOSS PARA FS

ROTOR	PCT SPAN	90.07	70.43	50.34	30.47	10.16	PCT SPAN
	DIA	16.960	17.810	18.700	19.580	20.480	DIA
ROTOR -L.E.	BETA 2	13.521	14.758	14.979	15.275	15.483	BETA 2
ROTOR -T.E.	BETA 3	62.755	54.166	51.810	52.313	58.132	BETA 3
	BETA(PR) 2	51.030	51.798	53.464	55.270	57.303	BETA(PR) 2
	BETA(PR) 3	4.640	18.110	25.606	31.648	38.900	BETA(PR) 3
	V 2	548.00	610.97	615.26	616.88	600.00	V 2
	V 3	923.94	894.72	870.59	845.34	610.13	V 3
	VZ 2	579.42	590.22	592.56	586.14	573.86	VZ 2
	VZ 3	430.12	523.64	537.67	515.74	426.75	VZ 3
	V-THETA 2	136.33	155.48	158.54	160.08	158.96	V-THETA 2
	V-THETA 3	817.69	725.14	683.51	667.60	686.44	V-THETA 3
	V(PR) 2	921.3	954.8	996.5	1030.8	1064.8	V(PR) 2
	V(PR) 3	441.0	551.4	597.6	608.2	551.1	V(PR) 3
	VTHETA PR2	-716.3	-750.0	-799.8	-845.5	-894.0	VTHETA PR2
	VTHETA PR3	-14.9	-171.3	-257.7	-317.9	-344.3	VTHETA PR3
	U 2	859.63	905.45	958.30	1005.61	1052.92	U 2
	U 3	852.61	896.39	941.19	985.48	1030.78	U 3
	M 2	0.5497	0.5644	0.5686	0.5643	0.5536	M 2
	M 3	0.6963	0.6776	0.7660	0.7407	0.7022	M 3
	M(PR) 2	0.3448	0.8820	0.9210	0.9522	0.9826	M(PR) 2
	M(PR) 3	0.1775	0.4854	0.5258	0.5330	0.4777	M(PR) 3
	TURN(PR)	46.367	33.073	27.833	23.606	18.419	TURN(PR)
	UUBAR	0.2426	0.1060	0.0440	0.0547	0.1516	UUBAR

	LOSS PARA	0.1046	0.0386	0.0157	0.0193	0.0510	LOSS PARA
	DFAL	0.7950	0.8456	0.8055	0.8102	0.8927	DFAC
	EFFP	0.8644	0.9156	0.9612	0.9516	0.8686	EFFP
	EFF	0.7986	0.9096	0.9584	0.9481	0.8593	EFF
	INCID	2.907	3.068	3.766	4.354	5.800	INCID
	DEVM	14.660	12.115	10.483	11.389	18.021	DEVM
	P 2	14.555	14.657	14.681	14.663	14.609	P 2
	P 3	23.487	23.835	24.046	24.003	23.736	P 3
	T 2	518.700	518.700	518.700	518.700	518.700	T 2
	T 3	614.800	603.690	600.630	601.430	608.490	T 3

STATOR	PCT SPAN	90.02	70.31	50.34	30.11	10.14	PCT SPAN
	DIA	16.880	17.730	18.590	19.460	19.920	DIA
STATOR-L.E.	BETA 3	61.499	53.231	50.726	51.345	56.985	BETA 3
STATOR-T.E.	BETA 4	17.082	15.739	16.204	16.936	16.249	BETA 4
	V 3	907.80	907.03	886.15	860.71	825.72	V 3
	V 4	634.35	650.77	654.33	646.99	636.83	V 4
	VZ 3	447.95	542.77	560.40	536.45	448.88	VZ 3
	VZ 4	604.36	626.14	627.64	617.68	608.36	VZ 4
	V-THETA 3	816.18	726.36	685.34	670.68	690.82	V-THETA 3
	V-THETA 4	192.07	176.45	182.39	186.09	177.60	V-THETA 4
	M 3	0.8171	0.7998	0.7813	0.7552	0.7180	M 3
	M 4	0.5367	0.5566	0.5616	0.5545	0.5419	M 4
	TURN(PR)	43.815	37.475	34.474	34.330	40.646	TURN(PR)
	UUBAR	0.0623	0.0697	0.0837	0.0913	0.0814	UUBAR
	LOSS PARA	0.0215	0.0254	0.0317	0.0358	0.0333	LOSS PARA
	DFAC	0.8639	0.5136	0.4881	0.4814	0.4979	DFAC
	EFFP	0.9078	0.8849	0.8510	0.8276	0.8324	EFFP
	INCID	10.607	11.638	9.790	9.120	10.669	INCID
	DEVM	25.102	16.072	14.545	15.621	15.053	DEVM
	P 3	23.487	23.835	24.046	24.003	23.736	P 3
	P 4	22.967	23.264	23.377	23.313	23.176	P 4
	T 3	614.800	603.690	600.630	601.430	608.490	T 3
	T 4	614.800	603.690	600.630	601.430	608.490	T 4

Table C-4. Blade Element Performance (Continued)
Stage G, Rotor G - Stator G
Calculated Using Translated Values
Percent Equivalent Rotor Speed = 99.49 Equivalent Rotor Speed = 11537.00 Equivalent Weight Flow = 36.231 lb/sec
Uniform Inlet
U.S. Customary Units

INLET GUIDE VANE	PCT SPAN	89.86	69.09	47.80	27.87	[illegible]	PCT SPAN
	DIA	17.100	18.330	19.500	20.770	21.876	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	17.416	18.566	19.276	19.519	19.722	BETA 2
	V 1	359.97	373.08	375.49	372.38	[illegible].77	V 1
	V 2	445.06	451.63	451.25	446.70	437.61	V 2
	VZ 1	359.90	372.47	373.94	369.75	[illegible].01	VZ 1
	VZ 2	424.60	427.60	424.60	418.66	408.44	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	133.19	143.61	148.44	148.42	146.43	V-THETA 2
	M 1	0.3258	0.3380	0.3402	0.3375	0.3216	M 1
	M 2	0.4051	0.4113	0.4110	0.4067	0.3980	M 2
	TURN	-17.41	-18.54	-19.21	-19.41	-19.55	TURN
	UUBAR	0.0796	0.0433	0.0292	0.0389	0.0552	UUBAR
	DFAC	-0.087	-0.056	-0.042	-0.036	-0.044	DFAC
	EFFP	0.8747	0.9190	0.9230	0.9225	0.9162	EFFP
	INCID	-0.6600	-0.2900	0.0800	0.4100	0.7300	INCIT
	DEVM	6.537	6.848	7.668	9.614	10.013	DEVM
	P 1	14.656	14.708	14.721	14.709	14.674	P 1
	P 2	14.573	14.660	14.677	14.666	14.614	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	518.700	518.700	518.700	518.700	518.700	T 2
	UUBAR FS						UUBAR FS
	P1 FS						P1 FS
	LOSS PARA FS						LOSS PARA FS
ROTOR	PCT SPAN	90.07	70.43	50.34	30.47	10.16	PCT SPAN
	DIA	16.940	17.810	18.700	19.580	20.486	DIA
ROTOR -L.E.	BETA 2	13.580	14.541	15.147	14.436	15.651	BETA 2
ROTOR -T.E.	BETA 3	61.501	55.448	53.279	54.786	61.321	BETA 3
	BETA(PR) 2	52.461	52.388	54.095	56.724	58.738	BETA(PR) 2
	BETA(PR) 3	5.559	18.686	26.841	37.676	41.167	BETA(PR) 3
	V 2	570.65	583.40	586.46	582.86	571.79	V 2
	V 3	921.65	883.18	853.45	832.74	796.228	V 3
	VZ 2	554.64	564.15	564.38	558.82	546.40	VZ 2
	VZ 3	439.75	500.75	509.77	491.04	481.35	VZ 3
	V-THETA 2	133.97	146.33	152.78	154.24	153.08	V-THETA 2
	V-THETA 3	809.95	727.19	683.39	670.66	647.23	V-THETA 3
	V(PR) 2	910.3	946.3	984.7	1020.3	1055.2	V(PR) 2
	V(PR) 3	441.9	529.0	572.6	585.6	604.6	V(PR) 3
	VTHETA PR2	-721.8	-759.3	-805.7	-851.5	-900.0	VTHETA PR2
	VTHETA PR3	-42.8	-169.4	-258.0	-315.0	-353.7	VTHETA PR3
	U 2	855.77	905.61	958.47	1005.79	1053.11	U 2
	U 3	852.75	896.55	941.35	984.65	1030.96	U 3
	M 2	0.5250	0.5374	0.5404	0.5369	0.5261	M 2
	M 3	0.8062	0.7751	0.7486	0.7276	0.6873	M 3
	M(PR) 2	0.8375	0.8717	0.9074	0.9398	0.9710	M(PR) 2
	M(PR) 3	0.3865	0.4643	0.5023	0.5117	0.4395	M(PR) 3
	TURN(PR)	46.899	34.688	28.126	24.034	17.514	TURN(PR)
	UUBAR	0.2404	0.1031	0.0413	0.0515	0.1696	UUBAR
	LOSS PARA	0.0858	0.0368	0.0146	0.0179	0.0549	LOSS PARA
	DFAC	0.7803	0.6706	0.629[illegible]	0.6319	0.7365	DFAC
	EFFP	0.8438	0.9224	0.9650	0.9568	0.8608	EFFP
	EFF	0.8325	0.9167	0.9624	0.9536	0.8508	EFF
	INCID	4.418	4.658	5.312	5.612	5.240	INCID
	DEVM	15.579	12.890	11.716	12.418	20.304	DEVM
	P 2	14.573	14.660	14.677	14.666	14.614	P 2
	P 3	24.044	24.125	24.204	24.264	23.962	P 3
	T 2	518.700	518.700	518.700	518.700	518.700	T 2
	T 3	614.530	605.240	601.510	602.850	611.230	T 3
STATOR	PCT SPAN	90.02	70.31	50.34	30.11	10.14	PCT SPAN
	DIA	16.880	17.630	18.390	19.160	19.920	DIA
STATOR-L.E.	BETA 3	60.584	54.525	52.224	52.830	60.113	BETA 3
STATOR-T.E.	BETA 4	18.226	15.909	16.503	17.415	17.662	BETA 4
	V 3	930.40	894.71	867.71	846.80	810.44	V 3
	V 4	614.08	644.81	650.96	649.19	644.63	V 4
	VZ 3	456.95	519.09	531.06	510.86	403.27	VZ 3
	VZ 4	583.25	619.88	623.46	618.18	614.14	VZ 4
	V-THETA 3	810.43	728.42	685.22	673.76	701.68	V-THETA 3
	V-THETA 4	192.05	176.67	184.71	193.90	195.54	V-THETA 4
	M 3	0.8149	0.7864	0.7625	0.7412	0.7008	M 3
	M 4	0.5187	0.5506	0.5580	0.5558	0.5454	M 4
	TURN(PR)	42.357	38.600	35.672	35.338	42.373	TURN(PR)
	UUBAR	0.1635	0.1177	0.1108	0.1179	0.0846	UUBAR
	LOSS PARA	0.0564	0.0429	0.0419	0.0461	0.0343	LOSS PARA
	DFAC	0.5818	0.5143	0.4800	0.4693	0.4731	DFAC
	EFFP	0.7645	0.8008	0.7923	0.7633	0.8050	EFFP
	INCID	16.092	13.132	11.287	10.606	13.745	INCID
	DEVM	25.645	16.242	14.844	16.099	16.462	DEVM
	P 3	24.044	24.125	24.204	24.264	23.962	P 3
	P 4	22.653	23.173	23.347	23.390	23.396	P 4
	T 3	614.530	605.240	601.510	602.850	611.230	T 3
	T 4	614.530	605.240	601.510	602.850	611.230	T 4

Table C-4. Blade Element Performance (Continued)
Stage G, Rotor G - Stator G
Calculated Using Translated Values
Percent Equivalent Rotor Speed = 99.28 Equivalent Rotor Speed =11513.00 Equivalent Weight Flow = 34.619 lb/sec
Uniform Inlet
U.S. Customary Units

INLET GUIDE VANE	PCT SPAN	89.86	69.09	47.80	27.87	9.29	PCT SPAN
	DIA	17.100	18.330	19.590	20.770	21.870	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	17.475	18.954	19.738	19.670	19.660	BETA 2
	V 1	338.48	352.24	355.47	355.03	347.47	V 1
	V 2	417.45	425.32	424.92	420.07	414.02	V 2
	VZ 1	336.42	351.67	354.00	352.52	343.89	VZ 1
	VZ 2	398.13	401.76	398.68	393.37	386.75	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	125.34	137.97	143.05	140.62	138.17	V-THETA 2
	M 1	0.3060	0.3187	0.3217	0.3213	0.3143	M 1
	M 2	0.3792	0.3866	0.3862	0.3817	0.3760	M 2
	TURN	-17.47	-18.93	-19.67	-19.56	-19.50	TURN
	UUBAR	0.0962	0.0474	0.0455	0.0585	0.0684	UUBAR
	DFAC	-0.084	-0.050	-0.033	-0.021	-0.025	DFAC
	EFFP	0.8497	0.9102	0.9082	0.8775	0.8653	EFFP
	INCID	-0.6606	-0.2900	0.0800	0.4100	0.7300	INCID
	DEVM	6.477	6.460	7.207	8.463	10.074	DEVM
	P 1	14.647	14.699	14.714	14.712	14.698	P 1
	P 2	14.559	14.651	14.668	14.653	14.629	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	518.700	518.700	518.700	518.700	518.700	T 2
	UUBAR FS						UUBAR FS
	P1 FS						P1 FS
	LOSS PARA FS						LOSS PARA FS
ROTOR	PCT SPAN	90.07	70.43	50.34	30.47	10.16	PCT SPAN
	DIA	16.940	17.810	18.700	19.580	20.480	DIA
ROTOR -L.E.	BETA 2	13.748	14.978	15.656	15.703	15.734	BETA 2
ROTOR -T.E.	BETA 3	60.428	55.329	53.769	54.294	59.797	BETA 3
	BETA(PR) 2	54.705	55.451	57.070	58.771	60.507	BETA(PR) 2
	BETA(PR) 3	4.298	16.876	24.989	30.990	37.561	BETA(PR) 3
	V 2	530.55	544.48	547.03	542.99	536.71	V 2
	V 3	938.44	899.44	866.92	847.64	824.04	V 3
	VZ 2	515.30	525.46	525.16	519.93	512.71	VZ 2
	VZ 3	463.13	511.51	512.81	493.79	413.68	VZ 3
	V-THETA 2	126.08	140.56	147.18	146.19	144.45	V-THETA 2
	V-THETA 3	816.16	739.51	700.39	637.07	710.69	V-THETA 3
	V(PR) 2	841.4	926.9	965.7	1004.4	1043.5	V(PR) 2
	V(PR) 3	404.5	535.0	567.1	578.3	524.6	V(PR) 3
	VTHETA PR2	-767.9	-763.1	-809.3	-857.5	-906.5	VTHETA PR2
	VTHETA PR3	-54.6	-155.2	-239.0	-296.6	-318.1	VTHETA PR3
	U 2	853.99	903.73	956.47	1003.69	1050.92	U 2
	U 3	850.98	894.68	939.39	983.60	1028.81	U 3
	M 2	0.4863	0.4997	0.5022	0.4983	0.4922	M 2
	M 3	0.8215	0.7893	0.7613	0.7394	0.7113	M 3
	M(PR) 2	0.8175	0.8507	0.8865	0.9217	0.9570	M(PR) 2
	M(PR) 3	0.4066	0.4694	0.4969	0.5045	0.4528	M(PR) 3
	TURN(PR)	50.405	38.561	32.009	27.771	22.972	TURN(PR)
	UUBAR	0.2505	0.1220	0.0707	0.0844	0.1757	UUBAR
	LOSS PARA	0.0896	0.0440	0.0253	0.0301	0.0662	LOSS PARA
	DFAC	0.7501	0.6646	0.6360	0.6434	0.7279	DFAC
	EFFP	0.8455	0.9136	0.9445	0.9323	0.8615	EFFP
	EFF	0.8340	0.9072	0.9404	0.9273	0.8511	EFF
	INCID	0.662	0.722	7.345	7.864	7.616	INCID
	DEVM	14.317	10.881	9.867	10.733	10.684	DEVM
	P 2	14.559	14.651	14.668	14.653	14.629	P 2
	P 3	24.256	24.317	24.382	24.438	24.447	P 3
	T 2	518.700	518.700	518.700	518.700	518.700	T 2
	T 3	616.350	607.750	604.890	606.730	615.000	T 3
STATOR	PCT SPAN	90.02	70.31	50.34	30.11	10.14	PCT SPAN
	DIA	16.880	17.630	18.390	19.160	19.920	DIA
STATOR-L.E.	BETA 3	59.47e	54.346	52.654	53.265	58.534	BETA 3
STATOR-T.E.	BETA 4	17.053	10.009	17.184	18.277	19.007	BETA 4
	V 3	948.05	911.92	884.16	862.49	839.81	V 3
	V 4	621.77	651.83	666.76	667.70	670.60	V 4
	VZ 3	481.47	531.39	535.88	515.11	437.70	VZ 3
	VZ 4	594.41	626.31	636.30	632.77	632.00	VZ 4
	V-THETA 3	816.66	740.76	702.26	690.19	715.23	V-THETA 3
	V-THETA 4	182.33	179.70	196.77	208.92	217.70	V-THETA 4
	M 3	0.8311	0.8016	0.7763	0.7538	0.7263	M 3
	M 4	0.5246	0.5558	0.5708	0.5707	0.5692	M 4
	TURN(PR)	42.423	38.320	35.422	34.918	39.449	TURN(PR)
	UUBAR	0.1991	0.1569	0.1312	0.1320	0.1243	UUBAR
	LOSS PARA	0.0691	0.0571	0.0494	0.0514	0.0508	LOSS PARA
	DFAC	0.5876	0.5197	0.4742	0.4583	0.4588	DFAC
	EFFP	0.7162	0.7391	0.7517	0.7285	0.7146	EFFP
	INCID	14.986	12.953	11.717	11.042	12.162	INCID
	DEVM	24.472	16.343	15.525	16.954	17.803	DEVM
	P 3	24.256	24.317	24.382	24.438	24.447	P 3
	P 4	22.497	23.001	23.331	23.426	23.548	P 4
	T 3	616.350	607.750	604.890	606.730	615.000	T 3
	T 4	616.350	607.750	604.890	606.730	615.000	T 4

Table C-4. Blade Element Performance (Continued)
Stage G, Rotor G - Stator G
Calculated Using Translated Values
Percent Equivalent Rotor Speed = 99.66 Equivalent Rotor Speed = 11556.00 Equivalent Weight Flow = 33.916 lb/sec
Uniform Inlet
U.S. Customary Units

INLET GUIDE VANE	PCT SPAN	89.66	69.09	47.80	27.87	9.29	PCT SPAN
	DIA	17.100	18.330	19.590	20.770	21.870	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	17.355	18.810	19.396	19.461	19.646	BETA 2
	V 1	329.93	349.92	350.30	345.71	334.65	V 1
	V 2	412.37	419.81	419.41	414.30	406.84	V 2
	VZ 1	329.87	349.35	348.88	343.26	331.19	VZ 1
	VZ 2	393.53	396.90	394.35	388.46	380.08	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	122.69	135.10	138.84	137.26	135.68	V-THETA 2
	M 1	0.2981	0.3165	0.3169	0.3127	0.3025	M 1
	M 2	0.3745	0.3815	0.3811	0.3763	0.3694	M 2
	TURN	-17.35	-18.79	-19.33	-19.35	-19.48	TURN
	UUBAR	0.0769	0.0840	0.0437	0.0449	0.0568	UUBAR
	DFAC	-0.100	-0.044	-0.037	-0.036	-0.046	DFAC
	EFFP	0.8860	0.8851	0.9122	0.9105	0.8977	EFFP
	INCID	-0.6600	-0.2900	0.0800	0.4100	0.7300	INCID
	DEVM	6.597	6.604	7.548	8.472	10.089	DEVM
	P 1	14.645	14.718	14.723	14.706	14.677	P 1
	P 2	14.578	14.664	14.679	14.662	14.626	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	518.700	518.700	518.700	518.700	518.700	T 2
	UUBAR FS						UUBAR FS
	P1 FS						P1 FS
	LOSS PARA FS						LOSS PARA FS

ROTOR	PCT SPAN	90.07	70.43	50.34	30.47	10.16	PCT SPAN
	DIA	16.940	17.810	18.700	19.580	20.480	DIA
ROTOR -L.E.	BETA 2	13.676	14.893	15.414	15.569	15.756	BETA 2
ROTOR -T.E.	BETA 3	60.411	55.422	53.036	54.728	60.747	BETA 3
	BETA(PR) 2	55.271	46.050	57.625	59.365	61.167	BETA(PR) 2
	BETA(PR) 3	4.526	17.055	25.093	30.478	37.391	BETA(PR) 3
	V 2	523.32	536.51	539.05	534.50	526.20	V 2
	V 3	940.02	900.57	870.67	845.40	830.43	V 3
	VZ 2	508.43	517.96	518.10	517.13	502.11	VZ 2
	VZ 3	464.15	510.04	512.05	493.06	405.01	VZ 3
	V-THETA 2	123.71	137.75	142.65	142.69	141.84	V-THETA 2
	V-THETA 3	817.42	741.28	703.12	697.10	723.10	V-THETA 3
	V(PR) 2	892.5	927.8	968.5	1006.5	1044.2	V(PR) 2
	V(PR) 3	465.6	534.9	566.7	574.4	512.4	V(PR) 3
	VTHETA PR2	-723.5	-769.4	-817.2	-864.8	-913.0	VTHETA PR2
	VTHETA PR3	-36.7	-156.7	-239.8	-290.2	-309.6	VTHETA PR3
	U 2	857.18	907.10	960.05	1007.44	1054.84	U 2
	U 3	854.16	898.03	942.90	987.27	1032.65	U 3
	M 2	0.4794	0.4920	0.4965	0.4901	0.4821	M 2
	M 3	0.8224	0.7897	0.7621	0.7451	0.7155	M 3
	M(PR) 2	0.8176	0.8509	0.8884	0.9230	0.9568	M(PR) 2
	M(PR) 3	0.4074	0.4690	0.4960	0.5004	0.4415	M(PR) 3
	TURN(PR)	50.742	38.981	32.511	28.878	23.804	TURN(PR)
	UUBAR	0.2538	0.1277	0.0804	0.0963	0.1963	UUBAR

	LOSS PARA	0.0907	0.0460	0.0288	0.0343	0.0653	LOSS PARA
	DFAC	0.7564	0.6669	0.6404	0.6536	0.7458	DFAC
	EFFP	0.8448	0.9107	0.9380	0.9250	0.8524	EFFP
	EFF	0.8331	0.9041	0.9334	0.9193	0.8423	EFF
	INCID	7.228	7.321	7.951	8.459	7.679	INCID
	DEVM	14.546	11.061	9.970	10.222	16.515	DEVM
	P 2	14.578	14.664	14.679	14.662	14.626	P 2
	P 3	24.378	24.427	24.502	24.690	24.676	P 3
	T 2	518.700	518.700	518.700	518.700	518.700	T 2
	T 3	617.220	608.750	606.300	609.290	617.960	T 3

STATOR	PCT SPAN	90.02	70.31	50.34	30.11	10.14	PCT SPAN
	DIA	16.880	17.630	18.390	19.160	19.920	DIA
STATOR-L.E.	BETA 3	59.457	54.434	52.791	53.657	59.416	BETA 3
STATOR-T.E.	BETA 4	16.719	16.046	17.494	18.834	19.639	BETA 4
	V 3	949.69	913.08	885.99	870.70	846.54	V 3
	V 4	620.83	647.87	664.28	669.09	670.53	V 4
	VZ 3	482.61	530.94	535.30	515.25	430.10	VZ 3
	VZ 4	596.10	622.39	632.86	637.01	629.51	VZ 4
	V-THETA 3	817.90	742.53	705.01	700.31	727.72	V-THETA 3
	V-THETA 4	173.39	179.00	199.47	215.57	224.64	V-THETA 4
	M 3	0.8320	0.8020	0.7771	0.7600	0.7308	M 3
	M 4	0.5236	0.5517	0.5678	0.5707	0.5677	M 4
	TURN(PR)	43.237	38.371	35.250	34.749	39.702	TURN(PR)
	UUBAR	0.2086	0.1727	0.1467	0.1545	0.1499	UUBAR
	LOSS PARA	0.0727	0.0628	0.0552	0.0600	0.0601	LOSS PARA
	DFAC	0.5932	0.5256	0.4781	0.4635	0.4661	DFAC
	EFFP	0.7036	0.7162	0.7257	0.6887	0.6643	EFFP
	INCID	14.965	13.041	11.854	11.434	13.046	INCID
	DEVM	23.638	16.379	15.835	17.515	18.434	DEVM
	P 3	24.378	24.427	24.502	24.690	24.676	P 3
	P 4	22.522	22.970	23.320	23.478	23.570	P 4
	T 3	617.220	608.750	606.300	609.290	617.960	T 3
	T 4	617.220	608.750	606.300	609.290	617.960	T 4

ORIGINAL PAGE IS OF POOR QUALITY

Table C-4. Blade Element Performance (Continued)
Stage G, Rotor G - Stator G
Calculated Using Translated Values
Percent Equivalent Rotor Speed = 94.96 Equivalent Rotor Speed =11012.0 Equivalent Weight Flow = 39.578 lb/sec
Uniform Inlet
U.S. Customary Units

INLET GUIDE VANE						
I.G.V.-L.E.	PCT SPAN	89.86	69.09	47.80	27.87	9.29
I.G.V.-T.E.	DIA	17.100	16.330	19.590	20.770	21.870
	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000
	BETA 2	18.211	19.649	20.037	19.965	19.943
	V 1	394.84	413.18	418.40	413.18	396.60
	V 2	493.45	499.57	499.47	493.67	484.13
	VZ 1	394.76	412.51	416.68	410.26	392.51
	VZ 2	488.66	489.91	467.75	461.63	451.45
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00
	V-THETA 2	154.19	167.78	170.59	167.70	163.81
	M 1	0.3582	0.3753	0.3801	0.3753	0.3598
	M 2	0.4509	0.4567	0.4566	0.4513	0.4420
	TURN	-18.21	-19.62	-19.97	-19.85	-19.78
	UUBAR	0.0741	0.0475	0.0434	0.0423	0.0540
	DFAC	-0.093	-0.046	-0.029	-0.029	-0.048
	EFFP	0.8896	0.9122	0.9129	0.9154	0.9061
	INCID	-0.0600	-0.2900	0.0800	0.4100	0.7300
	DEVM	5.742	5.765	6.909	8.170	9.793
	P 1	14.635	14.712	14.736	14.717	14.665
	P 2	14.543	14.647	14.677	14.659	14.598
	T 1	518.700	518.700	518.700	518.700	518.700
	T 2	518.700	518.700	518.700	518.700	518.700
	UUBAR FS					
	P1 FS					
	LOSS PARA FS					

ROTOR						
ROTOR -L.E.	PCT SPAN	90.07	70.43	50.34	30.47	10.16
ROTOR -T.E.	DIA	16.940	17.810	18.700	19.580	20.480
	BETA 2	13.905	15.044	15.379	15.433	15.490
	BETA 3	43.969	40.051	37.165	35.854	37.928
	BETA(PR) 2	40.567	47.471	49.203	51.210	53.462
	BETA(PR) 3	7.155	15.059	22.685	29.077	34.785
	V 2	649.46	659.30	663.80	658.65	646.11
	V 3	1037.44	1007.99	960.44	911.00	850.76
	VZ 2	626.49	636.07	638.11	631.50	617.94
	VZ 3	748.04	771.18	763.99	735.74	667.65
	V-THETA 2	155.10	170.95	175.51	174.33	171.25
	V-THETA 3	720.23	648.26	579.16	531.68	520.27
	V(PR) 2	911.3	941.4	978.0	1010.3	1040.9
	V(PR) 3	752.6	799.3	830.1	845.4	817.4
	VTHETA PR2	-661.7	-693.4	-739.3	-785.7	-633.9
	VTHETA PR3	-93.7	-207.5	-319.4	-409.1	-663.8
	U 2	816.83	864.40	914.85	960.02	1005.18
	U 3	813.45	855.75	898.31	940.60	984.04
	M 2	0.5985	0.6123	0.6168	0.6116	0.5991
	M 3	0.9412	0.9179	0.8746	0.8270	0.7648
	M(PR) 2	0.8450	0.8743	0.9087	0.9382	0.9653
	M(PR) 3	0.6827	0.7278	0.7556	0.7674	0.7349
	TURN(PR)	39.410	32.394	26.484	22.103	18.672
	UUBAR	0.2685	0.1563	0.1043	0.1239	0.2163

	LOSS PARA	0.1027	0.0569	0.0380	0.0448	0.0767
	DFAC	0.3960	0.3405	0.3116	0.3066	0.3564
	EFFP	0.7631	0.8521	0.8622	0.8424	0.7123
	EFF	0.7505	0.8443	0.8704	0.8356	0.7017
	INCID	-1.470	-1.259	-0.478	0.288	-0.052
	DEVM	17.174	9.066	7.567	8.825	13.916
	P 2	14.543	14.647	14.677	14.659	14.598
	P 3	20.996	21.118	20.572	19.768	18.885
	T 2	518.700	518.700	518.700	518.700	518.700
	T 3	595.100	580.400	578.630	574.060	575.140

STATOR						
STATOR-L.E.	PCT SPAN	90.02	70.31	50.34	30.11	10.14
STATOR-T.E.	DIA	16.880	17.830	18.340	19.160	19.920
	BETA 3	41.815	38.050	35.763	34.941	37.131
	BETA 4	10.808	15.103	14.712	14.778	14.859
	V 3	1080.94	1054.10	994.74	935.17	870.48
	V 4	884.83	900.81	883.52	852.50	811.95
	VZ 3	805.59	829.63	805.69	764.48	691.54
	VZ 4	840.99	869.36	853.60	822.59	782.16
	V-THETA 3	720.65	649.36	580.71	534.13	523.59
	V-THETA 4	255.65	234.62	224.12	217.00	207.52
	M 3	0.9882	0.9675	0.9109	0.8521	0.7847
	M 4	0.7840	0.8007	0.7952	0.7674	0.7262
	TURN(PR)	25.005	22.930	21.022	20.085	22.169
	UUBAR	0.1090	0.0782	0.0633	0.0600	0.0810
	LOSS PARA	0.0379	0.0279	0.0241	0.0238	0.0333
	DFAC	0.3380	0.2957	0.2554	0.2303	0.2257
	EFFP	0.7623	0.7906	0.7789	0.7299	0.5067
	INCID	-2.678	-3.343	-5.153	-7.279	-9.253
	DEVM	24.427	15.437	13.055	13.466	13.068
	P 3	20.996	21.118	20.572	19.768	18.885
	P 4	19.934	20.391	20.031	19.320	18.374
	T 3	595.100	580.400	578.630	574.060	575.140
	T 4	595.100	586.400	578.630	574.060	575.140

Table C-4. Blade Element Performance (Continued)
Stage G, Rotor G -- Stator G
Calculated Using Translated Values
Percent Equivalent Rotor Speed = 95.28 Equivalent Rotor Speed =11049.00 Equivalent Weight Flow = 39.226 lb/sec
Uniform Inlet
U.S. Customary Units

INLET GUIDE VANE	PCT SPAN	89.86	69.09	47.80	27.87	9.29	PCT SPAN
	DIA	17.100	18.330	19.590	20.770	21.870	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	17.732	19.093	19.583	19.647	19.612	BETA 2
	V 1	391.46	405.88	410.12	408.80	397.92	V 1
	V 2	486.02	492.63	492.85	487.30	477.68	V 2
	VZ 1	391.39	405.21	408.43	405.91	395.81	VZ 1
	VZ 2	462.86	464.96	462.86	456.39	445.80	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	148.00	160.04	164.66	162.93	160.60	V-THETA 2
	M 1	0.3550	0.3684	0.3724	0.3712	0.3610	M 1
	M 2	0.4438	0.4501	0.4503	0.4450	0.4356	M 2
	TURN	-17.73	-19.07	-19.52	-19.53	-19.67	TURN
	UUBAR	0.0927	0.0538	0.0459	0.0568	0.0847	UUBAR
	DFAC	-0.089	-0.054	-0.039	-0.029	-0.031	DFAC
	EFFP	0.8610	0.9036	0.9118	0.8878	0.8481	EFFP
	INCID	-0.6600	-0.2900	0.0800	0.4100	0.7500	INCID
	DEVM	6.220	6.322	7.361	8.487	4.924	DEVM
	P 1	14.639	14.701	14.722	14.717	14.688	P 1
	P 2	14.526	14.630	14.660	14.641	14.580	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	518.700	518.700	518.700	518.700	518.700	T 2
	UUBAR FS						UUBAR FS
	P1 FS						P1 FS
	LOSS PARA FS						LOSS PARA FS
ROTOR	PCT SPAN	90.07	70.43	50.34	30.47	10.16	PCT SPAN
	DIA	16.940	17.810	18.700	19.580	20.480	DIA
ROTOR -L.E.	BETA 2	13.593	14.677	15.092	15.245	15.443	BETA 2
ROTOR -T.E.	BETA 3	47.891	43.508	41.694	40.906	44.287	BETA 3
	BETA(PR) 2	47.447	48.326	49.961	51.944	54.136	BETA(PR) 2
	BETA(PR) 3	5.769	15.175	22.348	28.500	34.609	BETA(PR) 3
	V 2	633.52	647.84	652.68	647.63	635.30	V 2
	V 3	1008.77	970.48	928.85	888.97	831.63	V 3
	VZ 2	615.72	626.07	628.28	621.48	607.74	VZ 2
	VZ 3	676.40	703.53	692.48	669.78	592.83	VZ 3
	V-THETA 2	148.87	163.98	169.42	169.37	167.89	V-THETA 2
	V-THETA 3	748.35	667.82	616.85	580.30	578.24	V-THETA 3
	V(PR) 2	910.5	942.1	976.5	1010.4	1040.3	V(PR) 2
	V(PR) 3	679.9	729.6	750.5	765.4	724.3	V(PR) 3
	VTHETA PR2	-670.7	-703.3	-748.5	-793.9	-840.7	VTHETA PR2
	VTHETA PR3	-68.3	-190.8	-284.7	-363.7	-409.1	VTHETA PR3
	U 2	819.58	867.30	917.93	963.24	1008.56	U 2
	U 3	816.68	858.63	901.53	943.96	987.35	U 3
	M 2	0.5866	0.6008	0.6057	0.6006	0.5884	M 2
	M 3	0.9064	0.8749	0.8361	0.7978	0.7384	M 3
	M(PR) 2	0.8431	0.8737	0.9081	0.9371	0.9635	M(PR) 2
	M(PR) 3	0.6109	0.6577	0.6756	0.6867	0.6431	M(PR) 3
	TURN(PR)	41.676	33.134	27.608	23.414	19.522	TURN(PR)
	UUBAR	0.2260	0.1013	0.0620	0.0713	0.1746	UUBAR
	LOSS PARA	0.0807	0.0368	0.0227	0.0259	0.0620	LOSS PARA
	DFAC	0.4888	0.4255	0.4109	0.4076	0.4708	DFAC
	EFFP	0.8275	0.9102	0.9373	0.9227	0.8056	EFFP
	EFF	0.8170	0.9048	0.9337	0.9185	0.7954	EFF
	INCID	-0.596	-0.405	0.309	1.023	0.624	INCID
	DEVM	15.789	9.182	7.231	8.249	13.740	DEVM
	P 2	14.526	14.630	14.660	14.641	14.580	P 2
	P 3	22.158	22.106	21.802	21.213	20.502	P 3
	T 2	518.700	518.700	518.700	518.700	518.700	T 2
	T 3	600.110	590.460	585.400	582.650	585.400	T 3
STATOR	PCT SPAN	90.02	70.31	50.34	30.11	10.14	PCT SPAN
	DIA	16.880	17.630	18.390	19.160	19.920	DIA
STATOR-L.E.	BETA 3	46.617	42.344	40.537	40.019	43.426	BETA 3
STATOR-T.E.	BETA 4	1.120	13.232	14.760	15.738	15.163	BETA 4
	V 3	1030.32	993.58	952.96	908.74	849.05	V 3
	V 4	756.52	763.71	744.61	709.12	661.04	V 4
	VZ 3	707.67	734.03	773.23	694.30	614.83	VZ 3
	VZ 4	733.63	743.15	719.23	681.13	635.88	VZ 4
	V-THETA 3	748.79	668.94	618.50	582.98	581.94	V-THETA 3
	V-THETA 4	184.55	174.74	189.48	191.95	172.33	V-THETA 4
	M 3	0.9291	0.8990	0.8610	0.8178	0.7556	M 3
	M 4	0.6566	0.6692	0.6541	0.6220	0.5755	M 4
	TURN(PR)	32.495	29.093	25.726	24.198	28.155	TURN(PR)
	UUBAR	0.0482	0.0324	0.0374	0.0562	0.0659	UUBAR
	LOSS PARA	0.0170	0.0119	0.0142	0.0222	0.0271	LOSS PARA
	DFAC	0.4650	0.4210	0.3985	0.3992	0.4309	DFAC
	EFFP	0.9224	0.9406	0.9265	0.8870	0.8637	EFFP
	INCID	2.125	0.950	-0.401	-2.207	-2.963	INCID
	DEVM	21.540	13.567	13.103	14.425	13.971	DEVM
	P 3	22.158	22.106	21.802	21.313	20.502	P 3
	P 4	21.702	21.814	21.490	20.887	20.076	P 4
	T 3	600.110	590.460	585.400	582.650	585.400	T 3
	T 4	600.110	590.460	585.400	582.650	585.400	T 4

Table C-4. Blade Element Performance (Continued)
Stage G, Rotor G - Stator G
Calculated Using Translated Values
Percent Equivalent Rotor Speed = 95.23 Equivalent Rotor Speed =11043.00 Equivalent Weight Flow = 38.635 lb/sec
Uniform Inlet
U.S. Customary Units

INLET GUIDE VANE	PCT SPAN	89.86	69.09	47.80	27.87	9.29	PCT SPAN
	DIA	17.100	18.330	19.590	20.770	21.870	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	17.707	18.855	19.455	19.595	19.797	BETA 2
	V 1	389.48	401.62	402.57	399.54	396.85	V 1
	V 2	476.11	482.90	482.47	477.21	468.21	V 2
	VZ 1	389.41	400.96	400.91	396.72	382.86	VZ 1
	VZ 2	453.48	456.42	453.48	447.08	437.01	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	144.78	155.87	160.19	159.15	157.31	V-THETA 2
	M 1	0.3532	0.3645	0.3654	0.3625	0.3507	M 1
	M 2	0.4344	0.4409	0.4405	0.4355	0.4276	M 2
	TURN	-17.70	-18.83	-19.39	-19.48	-19.63	TURN
	UUBAR	0.0876	0.0423	0.0296	0.0348	0.0507	UUBAR
	DFAC	-0.073	-0.046	-0.038	-0.031	-0.040	DFAC
	EFFP	0.8567	0.9181	0.9401	0.9287	0.9067	EFFP
	INCID	-0.6600	-0.2900	0.0800	0.4100	0.7300	INCID
	DEVM	6.246	6.559	7.489	8.538	9.938	DEVM
	P 1	14.661	14.712	14.719	14.707	14.671	P 1
	P 2	14.554	14.658	14.681	14.663	14.610	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	518.700	518.700	518.700	518.700	518.700	T 2
	UUBAR FS						UUBAR FS
	P1 FS						P1 FS
	LOSS PARA FS						LOSS PARA FS
ROTOR	PCT SPAN	90.07	70.43	50.34	30.47	10.16	PCT SPAN
	DIA	16.940	17.810	18.700	19.580	20.460	DIA
ROTOR -L.E.	BETA 2	13.638	14.567	15.074	15.286	15.506	BETA 2
ROTOR -T.E.	BETA 3	51.441	46.536	44.693	44.520	44.918	BETA 3
	BETA(PR) 2	48.291	49.700	50.886	52.791	54.906	BETA(PR) 2
	BETA(PR) 3	6.581	16.905	24.110	29.344	35.444	BETA(PR) 3
	V 2	617.74	632.09	635.65	630.94	619.80	V 2
	V 3	955.95	918.34	883.39	858.81	810.98	V 3
	VZ 2	600.26	611.15	611.93	605.35	592.74	VZ 2
	VZ 3	595.84	631.46	627.08	610.42	532.02	VZ 3
	V-THETA 2	145.63	158.81	166.81	165.44	164.45	V-THETA 2
	V-THETA 3	747.50	666.25	620.41	600.28	606.14	V-THETA 3
	V(PR) 2	902.2	935.7	971.2	1003.2	1035.8	V(PR) 2
	V(PR) 3	599.8	660.5	688.6	703.2	696.6	V(PR) 3
	VTHETA PR2	-673.5	-708.0	-752.6	-797.3	-843.6	VTHETA PR2
	VTHETA PR3	-68.7	-191.9	-280.6	-343.2	-378.7	VTHETA PR3
	U 2	819.13	866.83	917.43	962.72	1008.01	U 2
	U 3	816.24	868.16	901.04	943.45	986.83	U 3
	M 2	0.5711	0.5852	0.5888	0.5841	0.5731	M 2
	M 3	0.8516	0.8209	0.7890	0.7643	0.7144	M 3
	M(PR) 2	0.8340	0.8664	0.8696	0.9287	0.9559	M(PR) 2
	M(PR) 3	0.5344	0.5605	0.6150	0.6260	0.6785	M(PR) 3
	TURN(PR)	41.707	32.278	26.747	23.421	19.463	TURN(PR)
	UUBAR	0.2110	0.0826	0.0349	0.0407	0.1428	UUBAR
	LOSS PARA	0.0752	0.0298	0.0125	0.0147	0.0506	LOSS PARA
	DFAC	0.5738	0.4969	0.4736	0.4751	0.5467	DFAC
	EFFP	0.8428	0.9283	0.9650	0.9588	0.8538	EFFP
	EFF	0.8330	0.9239	0.9620	0.9563	0.8464	EFF
	INCID	0.248	0.469	1.208	1.872	1.366	INCID
	DEVM	16.600	10.911	8.980	9.091	14.573	DEVM
	P 2	14.554	14.658	14.681	14.663	14.610	P 2
	P 3	22.405	22.391	22.252	22.135	21.562	P 3
	T 2	518.700	518.700	518.700	518.700	518.700	T 2
	T 3	600.380	590.950	586.670	586.430	590.870	T 3
STATOR	PCT SPAN	90.02	70.31	50.24	30.11	10.14	PCT SPAN
	DIA	16.880	17.630	18.390	19.160	19.920	DIA
STATOR-L.E.	BETA 3	50.614	45.679	43.744	43.683	47.426	BETA 3
STATOR-T.E.	BETA 4	13.861	13.284	15.027	16.454	16.246	BETA 4
	V 3	967.76	933.20	900.81	875.02	828.55	V 3
	V 4	703.40	715.66	704.51	693.30	651.41	V 4
	VZ 3	614.06	651.73	649.06	631.42	552.47	VZ 3
	VZ 4	682.89	696.24	679.65	653.98	623.53	VZ 4
	V-THETA 3	747.94	667.37	622.07	603.05	612.00	V-THETA 3
	V-THETA 4	168.50	164.37	182.46	193.14	185.40	V-THETA 4
	M 3	0.8637	0.8360	0.8065	0.7807	0.7266	M 3
	M 4	0.6068	0.6235	0.6154	0.5957	0.5642	M 4
	TURN(PR)	36.751	32.376	28.665	27.146	21.428	TURN(PR)
	UUBAR	0.0615	0.0362	0.0367	0.0696	0.0887	UUBAR
	LOSS PARA	0.0217	0.0134	0.0151	0.0274	0.0281	LOSS PARA
	DFAC	0.4910	0.4385	0.4129	0.4144	0.4364	DFAC
	EFFP	0.8993	0.9316	0.9164	0.8566	0.8501	EFFP
	INCID	6.121	4.285	2.805	1.458	1.591	INCID
	DEVM	21.280	13.618	13.370	15.139	15.200	DEVM
	P 3	22.405	22.391	22.252	22.135	21.562	P 3
	P 4	21.874	22.093	21.945	21.624	21.120	P 4
	T 3	600.380	590.950	586.670	586.430	590.870	T 3
	T 4	600.380	590.950	586.670	586.430	590.870	T 4

Table C-4. Blade Element Performance (Continued)
Stage G, Rotor G - Stator G
Calculated Using Translated Values
Percent Equivalent Rotor Speed = 95.27 Equivalent Rotor Speed =11048.00 Equivalent Weight Flow = 37.274 lb/sec
Uniform Inlet
U.S. Customary Units

INLET GUIDE VANE	PCT SPAN	89.86	69.09	47.80	27.87	9.29	PCT SPAN
	DIA	17.100	18.330	19.590	20.770	21.870	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	17.438	18.769	19.194	19.458	19.761	BETA 2
	V 1	371.41	386.38	388.56	[illegible]	370.95	V 1
	V 2	455.86	462.88	463.55	458 [illegible]	449.35	V 2
	VZ 1	371.34	385.75	386.96	389 [illegible]	367.12	VZ 1
	VZ 2	434.85	437.72	436.39	429 [illegible]	419.50	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	[illegible]	-0.00	V-THETA 1
	V-THETA 2	136.59	148.75	151.91	151.8	150.70	V-THETA 2
	M 1	0.3364	0.3503	0.3523	0.347	0.3360	M 1
	M 2	0.4153	0.4219	0.4225	0.4177	0.4092	M 2
	TURN	-17.44	-18.75	-19.13	-19.35	-19.60	TURN
	UUBAR	0.0825	0.0457	0.0301	0.0308	0.0477	UUBAR
	DFAC	-0.079	-0.043	-0.035	-0.032	-0.041	DFAC
	EFFP	0.8662	0.9099	0.9371	0.9360	0.9117	EFFP
	INCID	-0.6600	-0.2900	0.0800	0.4100	0.7300	INCID
	DEVM	6.515	6.645	7.750	8.674	9.975	DEVM
	P 1	14.693	14.713	14.725	14.707	14.671	P 1
	P 2	14.562	14.658	14.689	14.671	14.618	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	518.700	518.700	518.700	518.700	518.700	T 2
	UUBAR FS						UUBAR FS
	P1 FS						P1 FS
	LOSS PARA FS						LOSS PARA FS
ROTOR	PCT SPAN	90.07	70.43	50.34	30.47	10.16	PCT SPAN
	DIA	16.940	17.810	18.700	19.580	20.460	DIA
ROTOR -L.E.	BETA 2	13.543	14.633	15.008	15.314	15.607	BETA 2
ROTOR -T.E.	BETA 3	55.175	49.106	47.351	47.764	51.670	BETA 3
	BETA(PR) 2	50.097	50.955	52.564	54.403	56.463	BETA(PR) 2
	BETA(PR) 3	5.854	17.189	23.948	29.500	35.558	BETA(PR) 3
	V 2	586.76	600.53	605.41	600.93	590.04	V 2
	V 3	928.58	896.12	870.91	846.05	806.66	V 3
	VZ 2	570.39	580.47	583.00	576.48	564.00	VZ 2
	VZ 3	530.28	586.43	589.27	572.70	498.70	VZ 3
	V-THETA 2	137.39	151.56	156.30	157.85	157.55	V-THETA 2
	V-THETA 3	762.25	677.14	639.74	614.85	630.78	V-THETA 3
	V(PR) 2	889.2	921.9	960.2	992.3	1023.4	V(PR) 2
	V(PR) 3	533.1	614.4	646.3	660.7	616.3	V(PR) 3
	VTHETA PR2	-662.1	-715.7	-761.5	-805.3	-850.9	VTHETA PR2
	VTHETA PR3	-54.4	-181.4	-261.7	-324.0	-356.5	VTHETA PR3
	U 2	819.50	867.23	917.84	963.16	1008.47	U 2
	U 3	816.61	858.55	901.45	943.87	987.26	U 3
	M 2	0.5407	0.5542	0.5589	0.5545	0.5439	M 2
	M 3	0.8215	0.7964	0.7733	0.7488	0.7070	M 3
	M(PR) 2	0.8194	0.8507	0.8865	0.9157	0.9434	M(PR) 2
	M(PR) 3	0.4716	0.5460	0.5739	0.5848	0.5402	M(PR) 3
	TURN(PR)	44.241	33.750	28.587	24.879	20.912	TURN(PR)
	UUBAR	0.2387	0.0811	0.0315	0.0350	0.1277	UUBAR
	LOSS PARA	0.0851	0.0292	0.0114	0.0126	0.0448	LOSS PARA
	DFAC	0.6519	0.5468	0.5230	0.5234	0.5939	DFAC
	EFFP	0.8324	0.9327	0.9701	0.9666	0.8805	EFFP
	EFF	0.8217	0.9284	0.9682	0.9644	0.8731	EFF
	INCID	2.054	2.225	2.885	3.486	2.958	INCID
	DEVM	15.873	11.195	8.827	9.247	14.686	DEVM
	P 2	14.562	14.658	14.689	14.671	14.618	P 2
	P 3	22.638	22.776	22.869	22.787	22.407	P 3
	T 2	518.700	518.700	518.700	518.700	518.700	T 2
	T 3	603.510	593.670	590.940	590.810	595.810	T 3
STATOR	PCT SPAN	90.02	70.31	50.34	30.11	10.14	PCT SPAN
	DIA	16.880	17.630	18.390	19.160	19.920	DIA
STATOR-L.E.	BETA 3	54.396	48.288	46.390	46.414	50.724	BETA 3
STATOR-T.E.	BETA 4	14.557	13.490	15.742	17.182	16.561	BETA 4
	V 3	938.08	908.96	886.95	861.38	821.90	V 3
	V 4	644.20	662.77	663.55	648.91	630.66	V 4
	VZ 3	546.11	604.58	611.07	592.71	519.15	VZ 3
	VZ 4	623.50	644.23	637.95	618.69	602.50	VZ 4
	V-THETA 3	762.70	678.28	641.45	622.71	634.81	V-THETA 3
	V-THETA 4	161.91	154.55	179.82	191.31	179.17	V-THETA 4
	M 3	0.8310	0.8093	0.7893	0.7639	0.7218	M 3
	M 4	0.5509	0.5728	0.5749	0.5615	0.5423	M 4
	TURN(PR)	39.837	34.779	30.597	29.150	34.063	TURN(PR)
	UUBAR	0.0819	0.0622	0.0686	0.0869	0.0781	UUBAR
	LOSS PARA	0.0288	0.0229	0.0260	0.0340	0.0319	LOSS PARA
	DFAC	0.5463	0.4904	0.4597	0.4554	0.4732	DFAC
	EFFP	0.8772	0.8943	0.8750	0.8361	0.8422	EFFP
	INCID	9.904	6.894	5.451	4.186	4.337	INCID
	DEVM	21.977	13.625	14.084	15.866	15.365	DEVM
	P 3	22.638	22.776	22.869	22.787	22.407	P 3
	P 4	21.963	22.280	22.341	22.153	21.893	P 4
	T 3	603.510	593.670	590.940	590.810	595.810	T 3
	T 4	603.510	593.670	590.940	590.810	595.810	T 4

Table C-4. Blade Element Performance (Continued)
Stage G, Rotor G - Stator G
Calculated Using Translated Values
Percent Equivalent Rotor Speed = 95.25 Equivalent Rotor Speed =11045.00 Equivalent Weight Flow = 36.039 lb/sec
Uniform Inlet
U.S. Customary Units

INLET GUIDE VANE	PCT SPAN	89.86	69.00	47.80	27.87	9.29	PCT SPAN
	DIA	17.100	18.330	19.590	20.770	21.870	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	17.511	18.948	19.249	19.414	19.705	BETA 2
	V 1	356.08	372.82	375.27	370.16	355.16	V 1
	V 2	436.78	443.86	444.23	439.34	430.08	V 2
	VZ 1	356.01	372.21	373.67	367.54	351.49	VZ 1
	VZ 2	416.47	419.29	418.05	412.06	401.64	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	131.40	143.95	145.98	145.22	143.85	V-THETA 2
	M 1	0.3222	0.3377	0.3399	0.3353	0.3214	M 1
	M 2	0.3973	0.4040	0.4043	0.3998	0.3911	M 2
	TURN	-17.51	-18.92	-19.19	-19.30	-19.54	TURN
	UUBAR	0.0824	0.0542	0.0454	0.0449	0.0588	UUBAR
	DFAC	-0.078	-0.035	-0.027	-0.026	-0.041	DFAC
	EFFP	0.8654	0.8903	0.9031	0.9056	0.8928	EFFP
	INCID	-0.6600	-0.2900	0.0800	0.4100	0.7300	INCID
	DEVM	6.442	6.466	7.695	8.718	10.030	DEVM
	P 1	14.650	14.715	14.728	14.709	14.666	P 1
	P 2	14.566	14.615	14.677	14.660	14.606	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	518.700	518.700	518.700	518.700	518.700	T 2
	UUBAR FS						UUBAR FS
	P1 FS						P1 FS
	LOSS PARA FS						LOSS PARA FS
ROTOR	PCT SPAN	90.07	70.43	50.34	30.47	10.16	PCT SPAN
	DIA	16.940	17.810	18.700	19.580	20.480	DIA
ROTOR -L.E.	BETA 2	13.692	14.879	15.168	15.397	15.682	BETA 2
ROTOR -T.E.	BETA 3	59.365	52.560	50.337	49.744	54.819	BETA 3
	BETA(PR) 2	51.706	42.534	44.170	55.973	58.018	BETA(PR) 2
	BETA(PR) 3	4.880	16.757	23.981	30.021	36.691	BETA(PR) 3
	V 2	558.46	571.76	575.80	571.67	560.59	V 2
	V 3	903.17	878.79	856.25	832.13	793.89	V 3
	VZ 2	547.53	552.03	554.07	548.20	535.66	VZ 2
	VZ 3	460.22	534.07	545.86	536.50	456.16	VZ 3
	V-THETA 2	132.17	146.67	150.20	150.97	150.38	V-THETA 2
	V-THETA 3	777.10	697.51	658.38	633.61	647.10	V-THETA 3
	V(PR) 2	875.5	907.9	947.6	981.5	1013.7	V(PR) 2
	V(PR) 3	461.9	558.2	598.9	622.2	571.9	V(PR) 3
	VTHETA PR2	-687.1	-720.3	-767.4	-811.9	-857.8	VTHETA PR2
	VTHETA PR3	-36.3	-160.8	-242.8	-310.0	-339.9	VTHETA PR3
	U 2	819.28	866.99	917.59	962.84	1008.20	U 2
	U 3	816.39	858.32	901.21	943.62	986.99	U 3
	M 2	0.5132	0.5261	0.5300	0.5260	0.5153	M 2
	M 3	0.7941	0.7764	0.7561	0.7329	0.6923	M 3
	M(PR) 2	0.8046	0.8354	0.8722	0.9031	0.9317	M(PR) 2
	M(PR) 3	0.4061	0.4932	0.5288	0.5480	0.4987	M(PR) 3
	TURN(PR)	46.824	35.762	30.162	25.934	21.341	TURN(PR)
	UUBAR	0.2776	0.1052	0.0433	0.0338	0.1307	UUBAR
	LOSS PARA	0.0992	0.0380	0.0156	0.0121	0.0452	LOSS PARA
	DFAC	0.7359	0.6121	0.5769	0.5661	0.6438	DFAC
	EFFP	0.8144	0.9172	0.9616	0.9665	0.8851	EFFP
	EFF	0.8024	0.9118	0.9593	0.9675	0.8776	EFF
	INCID	3.663	3.805	4.492	5.060	4.517	INCID
	DEVM	14.899	10.767	8.860	8.766	10.616	DEVM
	P 2	14.566	14.615	14.677	14.660	14.606	P 2
	P 3	22.719	23.061	23.253	23.230	22.893	P 3
	T 2	518.700	518.700	518.700	518.700	518.700	T 2
	T 3	606.240	597.380	594.670	594.060	599.670	T 3
STATOR	PCT SPAN	90.02	70.31	50.34	30.11	10.14	PCT SPAN
	DIA	16.880	17.630	18.390	19.160	19.920	DIA
STATOR-L.E.	BETA 3	58.570	51.723	49.352	48.886	53.833	BETA 3
STATOR-T.E.	BETA 4	16.515	14.764	15.670	17.383	17.415	BETA 4
	V 3	911.28	890.32	870.96	846.39	808.25	V 3
	V 4	607.61	639.34	642.82	631.35	619.51	V 4
	VZ 3	479.18	551.34	566.77	555.56	476.05	VZ 3
	VZ 4	582.52	617.98	618.21	601.30	594.17	VZ 4
	V-THETA 3	777.56	698.69	660.15	636.53	641.22	V-THETA 3
	V-THETA 4	172.72	162.92	173.53	188.24	184.81	V-THETA 4
	M 3	0.8021	0.7879	0.7706	0.7469	0.7061	M 3
	M 4	0.5167	0.5495	0.5540	0.5438	0.5304	M 4
	TURN(PR)	42.053	36.936	33.623	31.422	36.325	TURN(PR)
	UUBAR	0.0948	0.0745	0.0888	0.1074	0.0899	UUBAR
	LOSS PARA	0.0330	0.0272	0.0336	0.0420	0.0365	LOSS PARA
	DFAC	0.5747	0.5112	0.4849	0.4747	0.4839	DFAC
	EFFP	0.8623	0.8760	0.8416	0.8001	0.8174	EFFP
	INCID	14.078	10.329	8.414	8.659	7.451	INCID
	DEVM	23.934	15.103	14.021	16.067	16.216	DEVM
	P 3	22.719	23.061	23.253	23.230	22.893	P 3
	P 4	21.976	22.484	22.584	22.458	22.310	P 4
	T 3	606.240	597.380	594.670	594.060	599.670	T 3
	T 4	606.240	597.380	594.670	594.060	599.670	T 4

Table C-4. Blade Element Performance (Continued)
Stage G, Rotor G - Stator G
Calculated Using Translated Values
Percent Equivalent Rotor Speed = 95.06 Equivalent Rotor Speed =11023.00 Equivalent Weight Flow = 34.755 lb/sec
Uniform Inlet
U.S. Customary Units

INLET GUIDE VANE	PCT SPAN	89.36	69.09	47.80	27.87	6.29	PCT SPAN
	DIA	17.100	18.330	19.590	20.770	21.870	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	17.141	18.700	19.176	19.145	19.460	BETA 2
	V 1	340.87	358.46	361.15	355.68	340.72	V 1
	V 2	410.77	425.06	425.48	421.08	412.69	V 2
	VZ 1	340.81	357.89	359.66	353.16	337.20	VZ 1
	VZ 2	348.20	402.69	400.59	395.57	385.98	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	122.81	130.30	139.31	137.32	130.38	V-THETA 2
	M 1	0.3062	0.3245	0.3269	0.3219	0.3081	M 1
	M 2	0.3780	0.3869	0.3868	0.3826	0.3748	M 2
	TURN	-17.14	-18.68	-19.11	-19.03	-19.30	TURN
	UUBAR	0.0472	0.0536	0.0480	0.0406	0.0475	UUBAR
	DFAC	-0.076	-0.034	-0.022	-0.026	-0.044	DFAC
	EFFP	0.3417	0.8892	0.8946	0.9121	0.9113	EFFP
	INCID	-0.8600	-0.2900	0.0800	0.4100	0.7300	INCID
	DEVM	0.812	0.714	1.767	8.986	10.273	DEVM
	P 1	14.650	14.715	14.726	14.708	14.666	P 1
	P 2	14.559	14.660	14.678	14.667	14.621	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	518.700	518.700	518.700	518.700	518.700	T 2
	UUBAR FS						UUBAR FS
	P1 FS						P1 FS
	LOSS PARA FS						LOSS PARA FS
ROTOR	PCT SPAN	90.07	70.43	50.34	30.47	10.76	PCT SPAN
	DIA	16.940	17.810	18.700	19.580	20.480	DIA
ROTOR -L.E.	BETA 2	13.491	14.779	15.212	15.285	15.583	BETA 2
ROTOR -T.E.	BETA 3	56.907	53.524	51.842	51.497	56.752	BETA 3
	BETA(PR) 2	53.431	54.069	55.669	57.446	59.376	BETA(PR) 2
	BETA(PR) 3	4.988	17.001	25.219	31.044	37.411	BETA(PR) 3
	V 2	529.58	544.97	547.92	544.44	534.76	V 2
	V 3	903.91	869.17	835.79	815.47	786.42	V 3
	VZ 2	514.92	526.41	527.13	522.36	511.22	VZ 2
	VZ 3	466.79	516.55	515.81	506.61	430.10	VZ 3
	V-THETA 2	123.53	138.88	143.34	142.75	142.57	V-THETA 2
	V-THETA 3	774.03	698.68	656.48	630.81	650.06	V-THETA 3
	V(PR) 2	864.3	847.4	836.1	972.4	1005.7	V(PR) 2
	V(PR) 3	468.6	540.6	571.5	593.7	544.3	V(PR) 3
	VTHETA PR2	-694.1	-726.4	-772.4	-818.2	-863.6	VTHETA PR2
	VTHETA PR3	-40.7	-157.9	-242.9	-304.9	-329.0	VTHETA PR3
	U 2	817.65	865.26	915.70	960.98	1006.19	U 2
	U 3	814.76	850.01	899.41	941.74	985.02	U 3
	M 2	0.4854	0.5002	0.5030	0.4997	0.4904	M 2
	M 3	0.7944	0.7662	0.7357	0.7156	0.6835	M 3
	M(PR) 2	0.7922	0.8237	0.8594	0.8924	0.9222	M(PR) 2
	M(PR) 3	0.4116	0.4766	0.5030	0.5210	0.4731	M(PR) 3
	TURN(PR)	46.441	37.054	30.446	28.389	21.986	TURN(PR)
	UUBAR	0.2380	0.1015	0.0567	0.0548	0.1457	UUBAR
	LOSS PARA	0.0850	0.0366	0.0203	0.0193	0.0500	LOSS PARA
	DFAC	0.7271	0.6310	0.6031	0.5962	0.6756	DFAC
	EFFP	0.8468	0.9245	0.9527	0.9533	0.8770	EFFP
	EFF	0.8365	0.9194	0.9496	0.9501	0.8686	EFF
	INCID	5.388	5.340	0.013	0.555	5.881	INCID
	DEVM	15.007	11.006	10.096	10.786	16.535	DEVM
	P 2	14.559	14.660	14.678	14.667	14.621	P 2
	P 3	23.181	23.276	23.223	23.272	23.128	P 3
	T 2	518.700	518.700	518.700	518.700	518.700	T 2
	T 3	606.830	598.370	595.210	595.680	602.280	T 3
STATOR	PCT SPAN	90.02	70.31	50.34	30.11	10.14	PCT SPAN
	DIA	16.880	17.630	18.390	19.160	19.920	DIA
STATOR-L.E.	BETA 3	58.125	52.696	50.890	50.651	55.737	BETA 3
STATOR-T.E.	BETA 4	17.658	15.346	16.536	18.063	17.719	BETA 4
	V 3	912.03	880.11	849.13	828.67	800.30	V 3
	V 4	594.34	632.30	634.38	628.01	622.48	V 4
	VZ 3	481.00	533.22	535.13	524.54	449.76	VZ 3
	VZ 4	560.31	609.53	607.46	595.86	591.02	VZ 4
	V-THETA 3	774.48	699.85	658.24	639.75	660.25	V-THETA 3
	V-THETA 4	180.28	167.27	180.38	194.33	188.83	V-THETA 4
	M 3	0.8024	0.7770	0.7487	0.7284	0.6968	M 3
	M 4	0.5045	0.5426	0.5460	0.5400	0.5319	M 4
	TURN(PR)	40.466	37.333	34.303	32.510	37.930	TURN(PR)
	UUBAR	0.1618	0.1036	0.0906	0.1071	0.0998	UUBAR
	LOSS PARA	0.0567	0.0378	0.0343	0.0418	0.0405	LOSS PARA
	DFAC	0.5834	0.5122	0.4776	0.4661	0.4778	DFAC
	EFFP	0.7699	0.8256	0.8313	0.7906	0.7871	EFFP
	INCID	13.633	11.303	9.952	8.426	9.359	INCID
	DEVM	25.077	15.680	14.880	16.746	16.519	DEVM
	P 3	23.181	23.276	23.223	23.272	23.128	P 3
	P 4	21.884	22.483	22.569	22.531	22.488	P 4
	T 3	606.830	598.370	595.210	595.680	602.280	T 3
	T 4	606.830	598.370	595.210	595.680	602.280	T 4

ORIGINAL PAGE IS OF POOR QUALITY

Table C-4. Blade Element Performance (Continued)
Stage G, Rotor G - Stator G
Calculated Using Translated Values
Percent Equivalent Rotor Speed = 95.03 Equivalent Rotor Speed =11020.00 Equivalent Weight Flow = 33.897 lb/sec
Uniform Inlet
U.S. Customary Units

INLET GUIDE VANE	PCT SPAN	89.86	69.09	47.80	27.87	9.29	PCT SPAN
	DIA	17.100	18.330	19.590	20.770	21.870	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	17.359	18.879	19.191	19.368	19.650	BETA 2
	V 1	336.14	345.97	348.07	343.96	334.63	V 1
	V 2	407.95	415.65	416.14	411.66	402.35	V 2
	VZ 1	336.07	345.41	346.64	341.53	331.18	VZ 1
	VZ 2	389.31	392.80	391.76	386.21	375.88	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	121.70	134.33	136.35	135.76	134.21	V-THETA 2
	M 1	0.3038	0.3129	0.3148	0.3111	0.3025	M 1
	M 2	0.3704	0.3776	0.3780	0.3738	0.3657	M 2
	TURN	-17.36	-18.86	-19.13	-19.26	-19.49	TURN
	UUBAR	0.0987	0.0408	0.0279	0.0243	0.0581	UUBAR
	DFAC	-0.068	-0.045	-0.037	-0.035	-0.034	DFAC
	EFFP	0.8332	0.9193	0.9416	0.9489	0.8889	EFFP
	INCID	-0.6600	-0.2900	0.0800	0.4160	0.7300	INCID
	DEVM	6.594	6.535	7.753	8.764	10.084	DEVM
	P 1	14.668	14.705	14.716	14.701	14.679	P 1
	P 2	14.578	14.666	14.689	14.678	14.627	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	518.700	518.700	518.700	518.700	518.700	T 2
	UUBAR FS						UUBAR FS
	P1 FS						P1 FS
	LOSS PARA FS						LOSS PARA FS
ROTOR	PCT SPAN	90.07	70.43	50.34	30.47	10.16	PCT SPAN
	DIA	16.940	17.810	18.700	19.580	20.480	DIA
ROTOR -L.E.	BETA 2	13.697	14.966	15.270	15.509	15.783	BETA 2
ROTOR -T.E.	BETA 3	58.768	53.930	52.103	51.960	58.522	BETA 3
	BETA(PR) 2	54.145	54.887	56.460	58.178	60.166	BETA(PR) 2
	BETA(PR) 3	4.915	10.802	24.560	30.388	37.651	BETA(PR) 3
	V 2	517.02	530.52	534.30	530.66	519.77	V 2
	V 3	905.40	868.73	841.16	821.14	785.99	V 3
	VZ 2	502.27	512.01	513.89	508.60	496.41	VZ 2
	VZ 3	469.44	511.33	515.44	504.95	489.50	VZ 3
	V-THETA 2	122.41	136.87	140.29	141.13	140.31	V-THETA 2
	V-THETA 3	774.17	701.97	663.61	645.37	668.83	V-THETA 3
	V(PR) 2	857.5	890.5	931.0	966.1	999.9	V(PR) 2
	V(PR) 3	471.2	534.6	568.1	587.7	519.9	V(PR) 2
	VTHETA PR2	-695.0	-728.2	-775.2	-819.6	-865.6	VTHETA PR2
	VTHETA PR3	-0.4	-154.4	-235.6	-296.1	-315.9	VTHETA PR3
	U 2	817.43	865.03	915.52	960.71	1005.91	U 2
	U 3	814.54	850.37	899.17	941.48	984.76	U 3
	M 2	0.4734	0.4863	0.4899	0.4864	0.4760	M 2
	M 3	0.7957	0.7652	0.7399	0.7201	0.6817	M 2
	M(PR) 2	0.7851	0.8162	0.8537	0.8856	0.9156	M(PR) 2
	M(PR) 3	0.4141	0.4709	0.4997	0.5154	0.4509	M(PR) 3
	TURN(PR)	49.228	38.070	31.876	27.778	22.541	TURN(PR)
	UUBAR	0.2274	0.1624	0.0558	0.0538	0.1661	UUBAR
	LOSS PARA	0.3812	0.0369	0.0201	0.0192	0.0575	LOSS PARA
	DFAC	0.7224	0.6371	0.6089	0.6041	0.7046	DFAC
	EFFP	0.8560	0.9256	0.9549	0.9554	0.8628	EFFP
	EFF	0.8401	0.9265	0.9518	0.9523	0.8535	EFF
	INCID	0.102	6.158	6.765	7.269	6.674	INCID
	DEVM	14.934	10.808	9.439	10.132	10.774	DEVM
	P 2	14.578	14.666	14.689	14.678	14.627	P 2
	P 3	23.349	23.391	23.462	23.520	23.243	P 3
	T 2	518.700	518.700	518.700	518.700	518.700	T 2
	T 3	607.010	599.100	596.710	597.250	604.680	T 3
STATOR	PCT SPAN	90.02	70.31	50.34	30.11	10.14	PCT SPAN
	DIA	16.880	17.830	18.390	19.160	19.920	DIA
STATOR-L.E.	BETA 3	57.986	53.094	51.183	51.086	57.453	BETA 3
STATOR-T.E.	BETA 4	17.992	15.557	16.492	17.556	17.950	BETA 4
	V 3	913.59	879.63	854.80	834.62	799.80	V 3
	V 4	582.20	625.10	631.84	628.61	627.03	V 4
	VZ 3	484.31	528.06	535.31	523.42	499.59	VZ 3
	VZ 4	553.71	601.96	605.16	598.12	594.57	VZ 4
	V-THETA 3	774.63	703.15	665.39	646.35	673.10	V-THETA 3
	V-THETA 4	179.82	167.58	179.17	189.22	192.62	V-THETA 4
	M 3	0.8038	0.7760	0.7533	0.7332	0.6948	M 3
	M 4	0.4937	0.5357	0.5430	0.5398	0.5346	M 4
	TURN(PR)	39.992	37.526	34.642	33.451	39.418	TURN(PR)
	UUBAR	0.2017	0.1322	0.1259	0.1368	0.1036	UUBAR
	LOSS PARA	0.0696	0.0462	0.0476	0.0535	0.0420	LOSS PARA
	DFAC	0.5996	0.5214	0.4879	0.4759	0.4767	DFAC
	EFFP	0.7201	0.7811	0.7707	0.7363	0.7733	EFFP
	INCID	13.493	11.700	10.246	8.860	11.078	INCID
	DEVM	25.411	15.891	14.834	16.239	16.756	DEVM
	P 3	23.349	23.391	23.462	23.520	23.243	P 3
	P 4	21.717	22.370	22.535	22.553	22.579	P 4
	T 3	607.010	599.100	596.710	597.250	604.680	T 3
	T 4	607.010	599.100	596.710	597.250	604.680	T 4

Table C-4. Blade Element Performance (Continued)
Stage G, Rotor G - Stator G
Calculated Using Translated Values
Percent Equivalent Rotor Speed = 84.98 Equivalent Rotor Speed =9854.0 Equivalent Weight Flow = 37.082 lb/sec
Uniform Inlet
U.S. Customary Units

INLET GUIDE VANE	PCT SPAN	89.86	69.09	47.80	27.87	9.29	PCT SPAN
	DIA	17.100	18.330	19.590	20.770	21.870	DIA
LE-V-LE	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
TE-V-TE	BETA 2	18.128	19.403	20.176	20.105	20.088	BETA 2
	V 1	376.93	391.32	390.38	387.59	377.05	V 1
	V 2	404.65	471.65	470.52	464.98	456.53	V 2
	VZ 1	376.66	390.68	388.77	384.86	373.16	VZ 1
	VZ 2	441.71	444.32	440.26	434.24	425.33	VZ 2
	V-THETA 1	-0.06	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	144.61	150.50	161.78	156.95	155.54	V-THETA 2
	M 1	0.3454	0.3549	0.3540	0.3514	0.3416	M 1
	M 2	0.4238	0.4302	0.4291	0.4239	0.4159	M 2
	TURN	-18.13	-14.36	-20.11	-19.99	-19.92	TURN
	UUBAR	0.0915	0.0445	0.0306	0.0370	0.0533	UUBAR
	DFAC	-0.673	-0.044	-0.038	-0.032	-0.038	DFAC
	EFFP	0.8535	0.9152	0.9401	0.9264	0.9023	EFFP
	INCID	-0.0600	-0.2900	0.0800	0.4100	0.7300	INCID
	DEVM	5.825	6.011	6.770	8.031	9.650	DEVM
	P 1	14.663	14.715	14.715	14.704	14.675	P 1
	P 2	14.558	14.666	14.677	14.659	14.615	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	518.700	518.700	518.700	518.700	518.700	T 2
	UUBAR FS						UUBAR FS
	P1 FS						P1 FS
	LOSS PARA FS						LOSS PARA FS
ROTOR	PCT SPAN	90.07	70.43	50.34	30.47	10.16	PCT SPAN
	DIA	16.940	17.810	18.700	19.580	20.480	DIA
ROTOR-LE	BETA 2	14.023	15.365	15.710	15.770	15.813	BETA 2
ROTOR-TE	BETA 3	44.896	40.296	38.438	37.039	40.119	BETA 3
	BETA(PR) 2	45.149	46.027	47.793	49.859	52.076	BETA(PR) 2
	BETA(PR) 3	5.153	15.767	22.682	28.926	34.914	BETA(PR) 3
	V 2	600.38	614.12	616.34	611.27	601.23	V 2
	V 3	940.30	895.94	849.83	809.61	751.02	V 3
	VZ 2	582.43	592.42	591.52	585.11	574.13	VZ 2
	VZ 3	670.29	688.04	661.37	644.01	571.56	VZ 3
	V-THETA 2	145.46	159.46	166.45	165.23	162.61	V-THETA 2
	V-THETA 3	667.91	579.07	524.90	485.97	481.63	V-THETA 3
	V(PR) 2	825.9	853.7	881.8	909.8	937.0	V(PR) 2
	V(PR) 3	973.1	708.7	719.6	738.9	700.9	V(PR) 3
	VTHETA PR2	-585.5	-614.6	-652.2	-693.8	-736.9	VTHETA PR2
	VTHETA PR3	-0.4	-160.7	-279.1	-355.9	-396.9	VTHETA PR3
	U 2	730.94	773.50	818.65	859.06	899.48	U 2
	U 3	728.36	705.76	804.03	841.87	880.56	U 3
	M 2	0.5540	0.5675	0.5697	0.5647	0.5549	M 2
	M 3	0.8570	0.8132	0.7665	0.7323	0.6732	M 3
	M(PR) 2	0.7621	0.7889	0.8150	0.8405	0.8647	M(PR) 2
	M(PR) 3	0.0095	0.0433	0.0521	0.0684	0.0282	M(PR) 3
	TURN(PR)	39.994	30.722	24.677	20.901	17.155	TURN(PR)
	UUBAR	0.2397	0.1336	0.1067	0.0990	0.2085	UUBAR
	LOSS PARA	0.0856	0.0486	0.0389	0.0358	0.0736	LOSS PARA
	DFAC	0.4113	0.3535	0.3418	0.3307	0.3959	DFAC
	EFFP	0.8023	0.8657	0.8727	0.8689	0.7156	EFFP
	EFF	0.7931	0.8000	0.8678	0.8642	0.7069	EFF
	INCID	-2.894	-2.704	-1.889	-1.065	-1.440	INCID
	DEVM	15.172	9.294	7.763	8.674	14.044	DEVM
	P 2	14.558	14.660	14.677	14.659	14.615	P 2
	P 3	20.111	19.707	19.191	18.823	18.093	P 3
	T 2	518.700	518.700	518.700	518.700	518.700	T 2
	T 3	561.950	571.900	566.290	563.140	564.850	T 3
STATOR	PCT SPAN	90.02	70.31	50.34	30.11	10.14	PCT SPAN
	DIA	16.880	17.830	18.390	19.160	19.920	DIA
STATOR-LE	BETA 3	44.213	39.630	37.750	36.475	39.531	BETA 3
STATOR-TE	BETA 4	12.775	12.602	12.702	13.667	14.419	BETA 4
	V 3	956.42	909.87	860.97	823.45	764.05	V 3
	V 4	827.47	827.28	802.95	769.19	732.50	V 4
	VZ 3	680.91	700.41	679.74	660.38	587.35	VZ 3
	VZ 4	806.95	807.03	782.41	745.85	707.03	VZ 4
	V-THETA 3	668.31	580.04	526.31	488.22	484.70	V-THETA 3
	V-THETA 4	182.97	180.43	176.35	181.36	181.78	V-THETA 4
	M 3	0.8696	0.8276	0.7819	0.7462	0.6860	M 3
	M 4	0.7367	0.7437	0.7234	0.6922	0.6552	M 4
	TURN(PR)	31.436	27.009	24.996	22.725	25.005	TURN(PR)
	UUBAR	0.0623	0.0266	0.0259	0.0671	0.0563	UUBAR
	LOSS PARA	0.0220	0.0106	0.0099	0.0267	0.0232	LOSS PARA
	DFAC	0.3209	0.2583	0.2300	0.2216	0.2141	DFAC
	EFFP	0.8145	0.8731	0.8441	0.5753	0.4229	EFFP
	INCID	-0.279	-1.704	-3.187	-5.747	-6.856	INCID
	DEVM	20.195	12.937	11.047	12.358	13.229	DEVM
	P 3	20.111	19.707	19.191	18.823	18.093	P 3
	P 4	19.024	19.503	19.026	18.433	17.818	P 4
	T 3	561.950	571.900	566.290	563.140	564.850	T 3
	T 4	581.950	571.900	566.290	563.140	564.850	T 4

ORIGINAL PAGE IS OF POOR QUALITY

Table C-4. Blade Element Performance (Continued)
Stage G, Rotor G - Stator G
Calculated Using Translated Values
Percent Equivalent Rotor Speed = 84.78 Equivalent Rotor Speed = 9831.00 Equivalent Weight Flow = 37.105 lb/sec
Uniform Inlet
U.S. Customary Units

INLET GUIDE VANE	PCT SPAN	89.66	69.09	47.80	27.87	9.29	PCT SPAN
	DIA	17.100	18.330	19.590	20.770	21.870	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	17.768	19.445	19.819	19.753	19.737	BETA 2
	V 1	367.98	384.87	384.92	381.21	372.18	V 1
	V 2	453.55	461.74	461.03	457.10	448.56	V 2
	VZ 1	367.90	384.24	383.34	378.52	368.34	VZ 1
	VZ 2	431.65	435.93	432.34	427.82	418.82	VZ 2
	V-THETA 1	-0.30	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	138.38	150.48	155.82	153.63	150.76	V-THETA 2
	M 1	0.3332	0.3409	0.3469	0.3455	0.3371	M 1
	M 2	0.4151	0.4206	0.4202	0.4165	0.4084	M 2
	TURN	-17.77	-19.02	-19.75	-19.64	-19.57	TURN
	UUBAR	0.0904	0.0466	0.0348	0.0251	0.0491	UUBAR
	DFAC	-0.061	-0.042	-0.034	-0.034	-0.036	DFAC
	EFFP	0.8580	0.9086	0.9296	0.9485	0.9067	EFFP
	INCID	-0.6800	-0.2900	0.0800	0.4100	0.7300	INCID
	DEVM	6.105	6.370	7.126	8.381	9.998	DEVM
	P 1	14.698	14.716	14.720	14.705	14.682	P 1
	P 2	14.550	14.660	14.678	14.675	14.678	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	518.700	518.700	518.700	518.700	518.700	T 2
	UUBAR FS						UUBAR FS
	P1 FS						P1 FS
	LOSS PARA FS						LOSS PARA FS
ROTOR	PCT SPAN	96.07	76.43	50.34	30.47	10.16	PCT SPAN
	DIA	16.940	17.810	18.700	19.580	20.480	DIA
ROTOR-L.E.	BETA 2	13.808	14.852	15.508	15.551	15.594	BETA 2
ROTOR-T.E.	BETA 3	47.822	42.888	41.044	40.940	44.096	BETA 3
	BETA(PR) 2	46.172	46.922	48.642	50.547	52.754	BETA(PR) 2
	BETA(PR) 3	6.501	16.194	23.138	28.541	34.360	BETA(PR) 3
	V 2	583.68	598.79	601.49	598.91	588.81	V 2
	V 3	886.63	855.66	820.75	790.28	743.34	V 3
	VZ 2	566.37	578.21	577.86	573.90	562.86	VZ 2
	VZ 3	596.77	826.58	818.02	595.11	531.59	VZ 3
	V-THETA 2	139.20	153.33	160.32	159.71	157.08	V-THETA 2
	V-THETA 3	858.00	582.01	538.06	516.23	515.07	V-THETA 3
	V(PR) 2	817.4	847.0	875.8	905.3	932.8	V(PR) 2
	V(PR) 3	660.7	653.0	673.7	680.3	647.6	V(PR) 3
	VTHETA PR2	-540.0	-818.4	-858.4	-697.4	-746.3	VTHETA PR2
	VTHETA PR3	-48.0	-182.0	-264.1	-323.7	-363.4	VTHETA PR3
	U 2	729.23	771.70	816.74	857.06	897.38	U 2
	U 3	720.66	763.97	802.15	839.90	878.51	U 3
	M 2	0.5373	0.5525	0.5551	0.5526	0.5427	M 2
	M 3	0.7484	0.7713	0.7394	0.7096	0.6621	M 3
	M(PR) 2	0.7534	0.7815	0.8082	0.8352	0.8597	M(PR) 2
	M(PR) 3	0.5596	0.5467	0.6069	0.6109	0.5768	M(PR) 3
	TURN(PR)	39.669	30.712	25.476	21.974	18.387	TURN(PR)
	UUBAR	0.1470	0.0800	0.0218	0.0443	0.1374	UUBAR
	LOSS PARA	0.0702	0.0241	0.0079	0.0161	0.0490	LOSS PARA
	DFAC	0.4928	0.4162	0.3984	0.4082	0.4682	DFAC
	EFFP	0.8400	0.9354	0.9746	0.9462	0.8363	EFFP
	EFF	0.6322	0.9324	0.9734	0.9460	0.8297	EFF
	INCID	-1.871	-1.808	-1.040	-0.376	-0.762	INCID
	DEVM	10.520	10.200	8.020	8.290	13.491	DEVM
	P 2	14.550	14.660	14.678	14.675	14.628	P 2
	P 3	20.356	20.312	20.106	19.843	19.326	P 3
	T 2	518.700	518.700	518.700	518.700	518.700	T 2
	T 3	581.480	573.020	566.020	568.060	570.480	T 3
STATOR	PCT SPAN	90.62	70.31	50.34	30.11	10.14	PCT SPAN
	DIA	16.880	17.830	18.390	19.160	19.920	DIA
STATOR-L.E.	BETA 3	47.269	42.304	40.374	40.355	43.468	BETA 3
STATOR-T.E.	BETA 4	12.001	12.789	13.840	15.311	14.870	BETA 4
	V 3	896.47	866.59	834.02	802.83	755.70	V 3
	V 4	738.63	749.01	730.28	704.43	671.20	V 4
	VZ 3	606.40	640.62	634.49	610.33	546.85	VZ 3
	VZ 4	720.44	720.84	708.27	678.03	640.60	VZ 4
	V-THETA 3	654.05	583.00	539.50	518.61	518.36	V-THETA 3
	V-THETA 4	163.69	164.95	174.49	185.62	171.68	V-THETA 4
	M 3	0.8067	0.7824	0.7527	0.7221	0.6741	M 3
	M 4	0.6510	0.6627	0.6505	0.6261	0.5931	M 4
	TURN(PR)	34.410	29.500	26.482	24.961	28.490	TURN(PR)
	UUBAR	0.0475	0.0304	0.0369	0.0635	0.0711	UUBAR
	LOSS PARA	0.0186	0.0112	0.0141	0.0251	0.0793	LOSS PARA
	DFAC	0.2772	0.3256	0.2994	0.2957	0.3112	DFAC
	EFFP	0.8838	0.9074	0.8727	0.7734	0.7166	EFFP
	INCID	2.476	0.409	-0.584	-1.871	-2.921	INCID
	DEVM	20.240	13.120	12.184	13.499	13.679	DEVM
	P 3	20.358	20.312	20.106	19.843	19.326	P 3
	P 4	20.022	20.107	19.873	19.473	18.965	P 4
	T 3	581.480	573.020	566.020	568.060	570.480	T 3
	T 4	581.480	573.020	566.020	568.060	570.480	T 4

Table C-4. Blade Element Performance (Continued)
Stage G, Rotor G - Stator G
Calculated Using Translated Values
Percent Equivalent Rotor Speed = 84.75 Equivalent Rotor Speed = 9828.00 Equivalent Weight Flow = 35.438 lb/sec
Uniform Inlet
U.S. Customary Units

INLET GUIDE VANE	PCT SPAN	89.86	69.09	47.80	27.87	[illegible]	PCT SPAN
	DIA	17.100	18.330	19.590	20.770	21.870	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	17.723	18.971	19.568	19.700	19.[illegible]	BETA 2
	V 1	348.10	365.42	365.91	367.28	35[illegible]	V 1
	V 2	430.89	438.02	438.38	434.05	425.[illegible]	V 2
	VZ 1	348.03	364.82	364.40	364.69	354.[illegible]	VZ 1
	VZ 2	410.38	414.66	411.75	406.36	397.[illegible]	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	131.15	142.55	146.36	145.51	142.11	V-THETA 2
	M 1	0.3149	0.3309	0.3313	0.3326	0.3244	M 1
	M 2	0.3918	0.3965	0.3989	0.3948	0.3866	M 2
	TURN	-17.72	-18.95	-19.50	-19.44	-19.72	TURN
	UUBAR	0.0923	0.0507	0.0393	0.0344	0.0[illegible]	UUBAR
	DFAC	-0.086	-0.045	-0.036	-0.019	-0.021	DFAC
	EFFP	0.8579	0.9020	0.9210	0.9238	0.1623	EFFP
	INCID	-0.6600	-0.2900	0.0800	0.4100	0.7300	INCID
	DEVM	6.230	6.443	7.377	8.434	10.0[illegible]	DEVM
	P 1	14.647	14.713	14.718	14.704	14.[illegible]	P 1
	P 2	14.517	14.658	14.675	14.666	14.[illegible]	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	518.700	518.700	518.700	518.700	518.700	T 2
	UUBAR FS						UUBAR FS
	P1 FS						P1 FS
	LOSS PARA FS						LOSS PARA FS
ROTOR	PCT SPAN	90.07	70.43	50.34	30.47	10.16	PCT SPAN
	DIA	16.960	17.810	18.700	19.580	20.[illegible]	DIA
ROTOR -L.E.	BETA 2	13.882	14.923	15.448	15.651	15.[illegible]	BETA 2
ROTOR -T.E.	BETA 3	49.968	45.458	43.554	43.397	47.[illegible]	BETA 3
	BETA(PR) 2	48.205	48.968	50.707	52.[illegible]	54.[illegible]	BETA(PR) 2
	BETA(PR) 3	7.257	17.212	24.404	29.492	35.[illegible]	BETA(PR) 3
	V 2	549.88	564.57	567.03	563.[illegible]	553.[illegible]	V 2
	V 3	857.28	821.58	789.07	766.41	722.[illegible]	V 3
	VZ 2	533.76	544.98	544.90	536.90	528.[illegible]	VZ 2
	VZ 3	551.62	576.03	570.97	555.64	490.[illegible]	VZ 3
	V-THETA 2	131.92	145.24	150.58	151.26	148.[illegible]	V-THETA 2
	V-THETA 3	656.19	585.30	542.86	525.38	527.[illegible]	V-THETA 3
	V(PR) 2	800.9	830.5	861.6	890.3	919.0	V(PR) 2
	V(PR) 3	556.1	603.5	628.5	641.0	606.7	V(PR) 3
	VTHETA PR2	-597.1	-626.2	-665.6	-705.5	-748.[illegible]	VTHETA PR2
	VTHETA PR3	-70.2	-178.4	-255.0	-314.3	-351.1	VTHETA PR3
	U 2	729.01	771.46	816.49	856.80	897.11	U 2
	U 3	726.43	763.74	801.91	839.64	878.24	U 3
	M 2	0.5049	0.5191	0.5215	0.5185	0.5084	M 2
	M 3	0.7663	0.7362	0.7065	0.6850	0.6466	M 3
	M(PR) 2	0.7354	0.7637	0.7924	0.8186	0.8442	M(PR) 2
	M(PR) 3	0.4971	0.5408	0.5628	0.5725	0.5376	M(PR) 3
	TURN(PR)	40.946	31.740	26.273	23.057	19.174	TURN(PR)
	UUBAR	0.1786	0.0663	0.0213	0.0287	0.1228	UUBAR
	LOSS PARA	0.0635	0.0239	0.0077	0.0103	0.0451	LOSS PARA
	DFAC	0.5398	0.4714	0.4476	0.4506	0.5143	DFAC
	EFFP	0.8622	0.9399	0.9766	0.9687	0.8657	EFFP
	EFF	0.8553	0.9369	0.9755	0.9672	0.8598	EFF
	INCID	0.162	0.238	1.026	1.655	1.248	INCID
	DEVM	17.276	11.217	9.283	9.238	14.710	DEVM
	P 2	14.557	14.658	14.675	14.666	14.618	P 2
	P 3	20.610	20.507	20.352	20.260	19.817	P 3
	T 2	518.700	518.700	518.700	518.700	518.700	T 2
	T 3	582.040	574.440	570.770	570.560	573.500	T 3
STATOR	PCT SPAN	90.02	70.31	50.34	30.11	10.14	PCT SPAN
	DIA	16.880	17.630	18.390	19.160	19.920	DIA
STATOR-L.E.	BETA 3	49.450	44.907	42.910	42.820	46.406	BETA 3
STATOR-T.E.	BETA 4	12.996	12.929	14.477	15.730	14.990	BETA 4
	V 3	864.14	830.85	800.50	778.26	734.42	V 3
	V 4	675.09	683.88	673.49	656.38	627.88	V 4
	VZ 3	561.77	588.20	585.54	569.58	505.07	VZ 3
	VZ 4	657.77	666.28	651.37	630.50	604.48	VZ 4
	V-THETA 3	656.58	586.29	544.31	527.81	530.49	V-THETA 3
	V-THETA 4	151.80	152.95	168.18	177.58	161.86	V-THETA 4
	M 3	0.7731	0.7454	0.7179	0.6961	0.6616	M 3
	M 4	0.5904	0.6028	0.5951	0.5791	0.5508	M 4
	TURN(PR)	36.452	31.959	28.381	27.006	31.306	TURN(PR)
	UUBAR	0.0670	0.0359	0.0334	0.0285	0.0582	UUBAR
	LOSS PARA	0.0237	0.0132	0.0128	0.0231	0.0240	LOSS PARA
	DFAC	0.4313	0.3757	0.3464	0.3443	0.3631	DFAC
	EFFP	0.8612	0.9097	0.9060	0.8311	0.8158	EFFP
	INCID	4.957	3.512	1.971	0.593	0.017	INCID
	DEVM	20.415	13.264	12.820	14.417	13.799	DEVM
	P 3	20.610	20.507	20.352	20.260	19.817	P 3
	P 4	20.159	20.280	20.154	19.932	19.531	P 4
	T 3	582.040	574.440	570.770	570.560	573.500	T 3
	T 4	582.040	574.440	570.770	570.560	573.500	T 4

Table C-4. Blade Element Performance (Continued)
Stage G, Rotor G - Stator G
Calculated Using Translated Values
Percent Equivalent Rotor Speed = 84.65 Equivalent Rotor Speed = 9816.00 Equivalent Weight Flow = 33.959 lb/sec
Uniform Inlet
U.S. Customary Units

INLET GUIDE VANE	PCT SPAN	89.86	69.09	47.80	27.87	9.29	PCT SPAN
	DIA	17.100	18.330	19.590	20.770	21.870	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	17.471	18.936	19.720	19.652	19.641	BETA 2
	V 1	337.47	349.29	349.67	345.04	331.46	V 1
	V 2	408.62	416.16	416.18	411.25	404.41	V 2
	VZ 1	337.41	348.72	348.23	342.60	328.04	VZ 1
	VZ 2	389.71	393.16	390.53	385.15	377.82	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	122.66	134.88	139.98	137.54	134.84	V-THETA 2
	M 1	0.3051	0.3160	0.3163	0.3120	0.2964	M 1
	M 2	0.3710	0.3780	0.3781	0.3735	0.3671	M 2
	TURN	-17.47	-18.91	-19.65	-19.54	-19.48	TURN
	UUBAR	0.1055	0.0533	0.0368	0.0357	0.0314	UUBAR
	DFAC	-0.064	-0.036	-0.028	-0.029	-0.050	DFAC
	EFFP	0.8215	0.8919	0.9222	0.9250	0.9411	EFFP
	INCID	-0.6600	-0.2900	0.0800	0.4100	0.7300	INCID
	DEVM	6.481	6.479	7.225	8.481	10.093	DEVM
	P 1	14.671	14.714	14.719	14.702	14.666	P 1
	P 2	14.574	14.661	14.683	14.668	14.637	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	518.700	518.700	518.700	518.700	518.700	T 2
	UUBAR FS						UUBAR FS
	P1 FS						P1 FS
	LOSS PARA FS						LOSS PARA FS
ROTOR	PCT SPAN	90.07	70.43	50.34	30.47	10.16	PCT SPAN
	DIA	16.940	17.810	18.700	19.580	20.480	DIA
ROTOR -L.E.	BETA 2	13.781	15.008	15.685	15.735	15.768	BETA 2
ROTOR -T.E.	BETA 3	53.136	47.513	45.476	45.524	48.603	BETA 3
	BETA(PR) 2	50.246	51.002	52.624	54.551	58.524	BETA(PR) 2
	BETA(PR) 3	6.284	17.099	24.283	29.954	35.701	BETA(PR) 3
	V 2	517.99	531.26	534.36	530.06	522.67	V 2
	V 3	837.72	807.37	779.21	752.60	717.26	V 3
	VZ 2	502.03	512.63	512.92	507.47	494.22	VZ 2
	VZ 3	502.55	545.09	545.62	525.86	469.20	VZ 3
	V-THETA 2	123.38	137.43	144.03	142.98	140.96	V-THETA 2
	V-THETA 3	670.20	595.13	564.77	531.67	544.51	V-THETA 3
	V(PR) 2	786.6	815.0	846.0	876.7	907.4	V(PR) 2
	V(PR) 3	505.6	570.8	600.0	609.4	573.5	V(PR) 3
	VTHETA PR2	-604.7	-633.1	-671.5	-712.5	-755.1	VTHETA PR2
	VTHETA PR3	-55.3	-167.7	-246.7	-303.0	-332.9	VTHETA PR3
	U 2	726.12	770.52	815.49	855.75	898.01	U 2
	U 3	725.55	762.81	800.93	838.62	877.17	U 3
	M 2	0.4743	0.4870	0.4900	0.4858	0.4788	M 2
	M 3	0.7449	0.7206	0.6953	0.6694	0.6330	M 3
	M(PR) 2	0.7203	0.7471	0.7757	0.8026	0.8312	M(PR) 2
	M(PR) 3	0.4496	0.5094	0.5354	0.5421	0.5061	M(PR) 3
	TURN(PR)	43.959	33.888	28.313	24.575	20.835	TURN(PR)
	UUBAR	0.2198	0.0720	0.0162	0.0332	0.1285	UUBAR
	LOSS PARA	0.0784	0.0259	0.0058	0.0119	0.0450	LOSS PARA
	DFAC	0.6059	0.5096	0.4797	0.4868	0.5585	DFAC
	EFFP	0.8410	0.9380	0.9829	0.9663	0.8704	EFFP
	EFF	0.8329	0.9349	0.9821	0.9647	0.8663	EFF
	INCID	2.203	2.272	2.945	3.634	4.023	INCID
	DEVM	16.304	11.104	9.162	6.660	14.829	DEVM
	P 2	14.574	14.661	14.683	14.668	14.637	P 2
	P 3	20.735	20.763	20.705	20.552	20.257	P 3
	T 2	518.700	518.700	518.700	518.700	518.700	T 2
	T 3	584.710	576.690	573.200	573.100	577.040	T 3
STATOR	PCT SPAN	90.02	70.31	50.34	30.11	10.14	PCT SPAN
	DIA	16.880	17.830	18.780	19.760	20.620	DIA
STATOR-L.E.	BETA 3	52.622	46.956	44.815	44.031	48.429	BETA 3
STATOR-T.E.	BETA 4	13.702	12.552	15.049	16.910	15.785	BETA 4
	V 3	843.92	816.03	790.18	763.40	728.25	V 3
	V 4	624.85	636.50	629.92	614.69	591.19	V 4
	VZ 3	512.20	556.77	559.86	538.34	477.21	VZ 3
	VZ 4	607.08	621.04	607.63	588.49	567.47	VZ 4
	V-THETA 3	670.60	596.14	556.26	538.04	547.79	V-THETA 3
	V-THETA 4	148.01	138.29	163.37	172.34	160.13	V-THETA 4
	M 3	0.7510	0.7291	0.7060	0.6799	0.6431	M 3
	M 4	0.5425	0.5672	0.5629	0.5388	0.5119	M 4
	TURN(PR)	38.918	34.383	29.714	28.530	33.644	TURN(PR)
	UUBAR	0.0661	0.0470	0.0504	0.0795	0.0874	UUBAR
	LOSS PARA	0.0233	0.0173	0.0192	0.0234	0.0276	LOSS PARA
	DFAC	0.4848	0.4338	0.4014	0.3948	0.4195	DFAC
	EFFP	0.8802	0.9013	0.8850	0.8574	0.8361	EFFP
	INCID	8.130	5.561	3.576	2.703	2.541	INCID
	DEVM	21.122	12.888	13.382	15.004	14.566	DEVM
	P 3	20.735	20.763	20.705	20.552	20.257	P 3
	P 4	20.308	20.472	20.410	20.226	19.928	P 4
	T 3	584.710	576.690	573.200	573.100	577.040	T 3
	T 4	584.710	576.690	573.200	573.100	577.040	T 4

Table C-4. Blade Element Performance (Continued)
Stage G, Rotor G - Stator G
Calculated Using Translated Values
Percent Equivalent Rotor Speed = 85.12 Equivalent Rotor Speed = 9870.00 Equivalent Weight Flow = 32.380 lb/sec
Uniform Inlet
U.S. Customary Units

INLET GUIDE VANE							
	PCT SPAN	89.66	69.09	47.80	27.87	9.29	PCT SPAN
	DIA	17.100	18.330	19.590	20.770	21.870	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	17.203	18.366	19.414	19.473	20.148	BETA 2
	V 1	312.76	331.89	333.06	329.78	318.50	V 1
	V 2	384.66	393.12	392.82	387.93	380.98	V 2
	VZ 1	312.70	331.35	331.69	327.45	315.21	VZ 1
	VZ 2	367.39	372.64	369.31	362.58	354.81	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	113.75	123.71	130.16	131.78	130.18	V-THETA 2
	M 1	0.2824	0.2999	0.3010	0.2980	0.2876	M 1
	M 2	0.3487	0.3566	0.3563	0.3517	0.3453	M 2
	TURN	-17.20	-18.34	-19.35	-19.86	-19.98	TURN
	UUBAR	0.0843	0.0509	0.0427	0.0481	0.0541	UUBAR
	DFAC	-0.083	-0.035	-0.021	-0.013	-0.025	DFAC
	EFFP	0.8632	0.8920	0.9059	0.8925	0.8923	EFFP
	INCID	-0.6600	-0.2900	0.0800	0.4100	0.7300	INCID
	DEVM	6.750	7.047	7.530	8.161	9.589	DEVM
	P 1	14.647	14.713	14.720	14.709	14.680	P 1
	P 2	14.581	14.667	14.681	14.666	14.636	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	518.700	518.700	518.700	518.700	518.700	T 2
	UUBAR FS						UUBAR FS
	P1 FS						P1 FS
	LOSS PARA FS						LOSS PARA FS

ROTOR							
	PCT SPAN	90.07	70.43	50.34	30.47	10.16	PCT SPAN
	DIA	16.940	17.810	18.700	19.580	20.480	DIA
ROTOR -L.E.	BETA 2	13.657	14.657	15.551	16.098	16.260	BETA 2
ROTOR -T.E.	BETA 3	54.387	48.935	47.851	48.136	52.772	BETA 3
	BETA(PR) 2	52.682	53.390	54.953	56.732	58.646	BETA(PR) 2
	BETA(PR) 3	6.696	17.785	24.917	30.478	36.904	BETA(PR) 3
	V 2	484.63	498.66	501.02	496.67	484.15	V 2
	V 3	827.79	765.40	765.68	743.11	707.42	V 3
	VZ 2	470.88	481.95	491.23	474.65	466.02	VZ 2
	VZ 3	482.01	522.30	513.16	494.72	426.64	VZ 3
	V-THETA 2	114.41	126.05	133.92	136.99	136.09	V-THETA 2
	V-THETA 3	672.95	599.47	566.95	552.08	561.58	V-THETA 3
	V(PR) 2	776.7	808.5	838.9	866.8	897.6	V(PR) 2
	V(PR) 3	485.4	549.0	567.2	576.4	636.4	V(PR) 3
	VTHETA PR2	-617.7	-648.7	-686.1	-723.5	-764.8	VTHETA PR2
	VTHETA PR3	-56.6	-167.5	-238.4	-291.2	-320.4	VTHETA PR3
	U 2	732.12	774.76	819.98	860.46	900.94	U 2
	U 3	729.54	767.01	805.33	843.23	881.99	U 3
	M 2	0.4425	0.4558	0.4581	0.4539	0.4468	M 2
	M 3	0.7339	0.7072	0.6799	0.6581	0.6216	M 3
	M(PR) 2	0.7092	0.7390	0.7670	0.7922	0.8199	M(PR) 2
	M(PR) 3	0.4303	0.4881	0.5036	0.5104	0.4713	M(PR) 3
	TURN(PR)	45.984	35.591	30.010	26.238	21.754	TURN(PR)
	UUBAR	0.2128	0.0779	0.0420	0.0482	0.1429	UUBAR

LOSS PARA	0.0758	0.0280	0.0151	0.0172	0.0493	LOSS PARA
DFAC	0.6324	0.5400	0.5250	0.5298	0.6035	DFAC
EFFP	0.8546	0.9371	0.9611	0.9546	0.8863	EFFP
EFF	0.8469	0.9338	0.9591	0.9523	0.8596	EFF
INCID	4.639	4.660	5.275	5.820	5.148	INCID
DEVM	16.715	11.789	9.795	10.222	16.029	DEVM
P 2	14.581	14.667	14.681	14.666	14.636	P 2
P 3	21.049	21.036	20.948	20.884	20.606	P 3
T 2	518.700	518.700	518.700	518.700	518.700	T 2
T 3	586.440	578.990	576.510	576.580	580.660	T 3

STATOR							
	PCT SPAN	90.02	70.31	50.34	30.11	10.14	PCT SPAN
	DIA	16.880	17.630	18.390	19.160	19.920	DIA
STATOR-L.E.	BETA 3	53.871	48.376	47.170	47.527	52.057	BETA 3
STATOR-T.E.	BETA 4	15.795	13.217	15.637	16.674	15.940	BETA 4
	V 3	833.70	803.59	776.01	753.35	718.17	V 3
	V 4	584.31	596.71	594.88	582.99	563.11	V 4
	VZ 3	491.54	533.57	526.97	507.73	440.66	VZ 3
	VZ 4	562.22	580.68	572.22	557.34	539.66	VZ 4
	V-THETA 3	673.35	600.48	568.47	554.62	565.17	V-THETA 3
	V-THETA 4	159.04	136.38	160.16	166.94	154.13	V-THETA 4
	M 3	0.7397	0.7153	0.6900	0.6679	0.6318	M 3
	M 4	0.5046	0.5193	0.5188	0.5079	0.4879	M 4
	TURN(PR)	38.074	35.140	31.482	29.771	36.016	TURN(PR)
	UUBAR	0.0892	0.0646	0.0524	0.0666	0.0670	UUBAR
	LOSS PARA	0.0311	0.0238	0.0199	0.0262	0.0274	LOSS PARA
	DFAC	0.5236	0.4775	0.4435	0.4405	0.4642	DFAC
	EFFP	0.8547	0.8800	0.8933	0.8589	0.8499	EFFP
	INCID	9.378	6.982	6.231	5.300	5.672	INCID
	DEVM	23.215	13.552	13.979	15.359	14.745	DEVM
	P 3	21.049	21.036	20.948	20.884	20.606	P 3
	P 4	20.476	20.644	20.649	20.525	20.281	P 4
	T 3	586.440	578.990	576.510	576.580	580.660	T 3
	T 4	586.440	578.990	576.510	576.580	580.660	T 4

ORIGINAL PAGE IS
OF POOR QUALITY

Table C-4. Blade Element Performance (Continued)
Stage G, Rotor G - Stator G
Calculated Using Translated Values
Percent Equivalent Rotor Speed = 84.34 Equivalent Rotor Speed = 9780.00 Equivalent Weight Flow = 30.695 lb/sec
Uniform Inlet
U.S. Customary Units

INLET GUIDE VANE	PCT SPAN	89.66	69.09	47.80	27.87	9.29	PCT SPAN
	DIA	17.100	16.330	19.590	20.770	21.870	DIA
1.6V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
1.6V.-T.E.	BETA 2	12.839	14.183	14.165	14.117	14.113	BETA 2
	V 1	290.87	317.37	316.02	310.67	299.71	V 1
	V 2	356.39	367.47	368.39	364.90	359.79	V 2
	VZ 1	290.62	316.85	314.72	308.48	296.62	VZ 1
	VZ 2	347.42	355.81	355.99	351.80	345.96	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	79.18	89.92	89.85	88.48	86.98	V-THETA 2
	M 1	0.2623	0.2866	0.2854	0.2804	0.2704	M 1
	M 2	0.3225	0.3328	0.3336	0.3304	0.3257	M 2
	TURN	-12.84	-14.16	-14.12	-14.03	-13.99	TURN
	UUBAR	0.0985	0.0727	0.0522	0.0456	0.0415	UUBAR
	DFAC	-0.116	-0.044	-0.051	-0.058	-0.079	DFAC
	EFFP	0.8401	0.8295	0.8771	0.8973	0.9167	EFFP
	INCID	-0.6600	-0.2900	0.0800	0.4100	0.7300	INCID
	DEVM	11.113	11.226	12.763	13.987	15.580	DEVM
	P 1	14.638	14.725	14.722	14.704	14.678	P 1
	P 2	14.571	14.664	14.680	14.669	14.648	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	518.700	518.700	518.700	518.700	518.700	T 2
	UUBAR FS						UUBAR FS
	PI FS						PI FS
	LOSS PARA FS						LOSS PARA FS
ROTOR	PCT SPAN	90.07	70.43	50.34	30.47	10.16	PCT SPAN
	DIA	16.940	17.810	18.700	19.580	20.480	DIA
ROTOR -L.E.	BETA 2	10.282	11.419	11.453	11.485	11.503	BETA 2
ROTOR -T.E.	BETA 3	54.442	49.189	46.961	46.328	51.443	BETA 3
	BETA(PR) 2	55.791	56.134	57.637	59.240	66.871	BETA(PR) 2
	BETA(PR) 3	7.366	18.375	25.894	31.309	37.026	BETA(PR) 3
	V 2	440.25	483.27	467.03	464.53	459.55	V 2
	V 3	813.29	780.62	752.25	732.72	700.21	V 3
	VZ 2	439.04	453.63	456.31	452.70	446.80	VZ 2
	VZ 3	472.92	509.99	512.73	504.65	435.04	VZ 3
	V-THETA 2	79.65	91.62	92.45	91.98	90.93	V-THETA 2
	V-THETA 3	661.58	590.60	549.09	528.60	545.81	V-THETA 3
	V(PR) 2	780.9	814.4	853.3	886.5	919.7	V(PR) 2
	V(PR) 3	478.9	537.8	571.3	593.0	547.8	V(PR) 3
	VTHETA PR2	-645.8	-676.1	-720.1	-760.6	-801.8	VTHETA PR2
	VTHETA PR3	-61.3	-169.4	-248.9	-306.9	-328.1	VTHETA PR3
	U 2	725.43	767.69	812.50	852.61	892.73	U 2
	U 3	722.79	760.01	797.99	835.54	873.95	U 3
	M 2	0.4062	0.4223	0.4258	0.4235	0.4188	M 2
	M 3	0.7182	0.6911	0.6653	0.6465	0.6125	M 3
	M(PR) 2	0.7109	0.7424	0.7780	0.8081	0.8381	M(PR) 2
	M(PR) 3	0.4211	0.4761	0.5057	0.5233	0.4792	M(PR) 3
	TURN(PR)	46.402	37.751	31.723	27.924	23.871	TURN(PR)
	UUBAR	0.7214	0.1011	0.0612	0.0596	0.1067	UUBAR
	LOSS PARA	0.0768	0.0362	0.0217	0.0210	0.0575	LOSS PARA
	DFAC	0.6060	0.5690	0.5393	0.5318	0.6148	DFAC
	EFFP	0.8521	0.9213	0.9463	0.9449	0.8460	EFFP
	EFF	0.8440	0.9171	0.9434	0.9420	0.8381	EFF
	INCID	7.746	7.411	7.963	8.334	7.382	INCID
	DEVM	17.400	12.380	10.771	11.051	16.151	DEVM
	P 2	14.571	14.664	14.680	14.669	14.648	P 2
	P 3	21.252	21.220	21.149	21.122	20.869	P 3
	T 2	518.700	518.700	518.700	518.700	518.700	T 2
	T 3	588.080	581.090	579.150	579.150	584.570	T 3
STATOR	PCT SPAN	90.02	70.31	50.34	30.11	10.14	PCT SPAN
	DIA	16.930	17.830	18.340	19.160	19.920	DIA
STATOR-L.E.	BETA 3	53.951	48.655	46.343	45.774	50.775	BETA 3
STATOR-T.E.	BETA 4	10.955	14.278	15.088	16.265	17.797	BETA 4
	V 3	814.77	788.31	761.99	742.55	710.65	V 3
	V 4	545.71	569.00	567.05	557.45	543.24	V 4
	VZ 3	481.81	520.55	525.52	516.88	444.39	VZ 3
	VZ 4	521.97	551.79	546.89	534.05	515.56	VZ 4
	V-THETA 3	661.97	591.00	550.56	531.04	549.30	V-THETA 3
	V-THETA 4	159.13	140.42	147.44	155.81	165.90	V-THETA 4
	M 3	0.7235	0.6965	0.6747	0.6560	0.6224	M 3
	M 4	0.4868	0.4934	0.4922	0.4834	0.4683	M 4
	TURN(PR)	38.995	34.358	31.193	29.425	32.882	TURN(PR)
	UUBAR	0.1265	0.0780	0.0713	0.0869	0.0780	UUBAR
	LOSS PARA	0.0446	0.0286	0.0271	0.0342	0.0316	LOSS PARA
	DFAC	0.5570	0.4955	0.4670	0.4597	0.4701	DFAC
	EFFP	0.8053	0.8625	0.8643	0.8292	0.8370	EFFP
	INCID	9.459	7.761	5.394	3.546	4.389	INCID
	DEVM	24.574	14.612	13.431	14.951	16.597	DEVM
	P 3	21.252	21.220	21.149	21.122	20.869	P 3
	P 4	20.448	20.780	20.753	20.661	20.495	P 4
	T 3	588.080	581.090	579.150	579.150	584.570	T 3
	T 4	588.080	581.090	579.150	579.150	584.570	T 4

Table C-4. Blade Element Performance (Continued)
Stage G, Rotor G - Stator G
Calculated Using Translated Values
Percent Equivalent Rotor Speed = 69.92 Equivalent Rotor Speed = 8108.0 Equivalent Weight Flow = 33.241 lb/sec
Uniform Inlet
U.S. Customary Units

INLET GUIDE VANE										
	PCT SPAN	87.00	69.09	47.80	27.87	6.29	PCT SPAN
	DIA	17.100	16.330	14.590	20.770	21.870	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	17.447	18.906	19.504	19.669	19.843	BETA 2
	V 1	326.03	339.00	342.82	338.30	327.02	V 1
	V 2	349.69	407.26	430.96	401.80	394.24	V 2
	VZ 1	325.97	338.45	341.41	335.91	323.64	VZ 1
	VZ 2	381.24	384.81	382.39	370.26	367.86	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	117.84	131.81	135.44	134.49	132.75	V-THETA 2
	M 1	0.2945	0.3062	0.3100	0.3058	0.2955	M 1
	M 2	0.3627	0.3697	0.3695	0.3646	0.3576	M 2
	TURN	-17.44	-18.88	-19.44	-19.56	-19.68	TURN
	UUBAR	0.1033	0.0531	0.0530	0.0555	0.0676	UUBAR
	DFAC	-0.078	-0.045	-0.027	-0.025	-0.030	DFAC
	EFFP	0.8351	0.8971	0.8848	0.8854	0.8747	EFFP
	INCID	-0.6600	-0.2900	0.0600	0.4100	0.7300	INCID
	DEVM	0.505	0.506	7.441	6.484	9.892	DEVM
	P 1	14.659	14.705	14.722	14.700	14.677	P 1
	P 2	14.570	14.636	14.672	14.655	14.619	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	518.700	518.700	518.700	518.700	518.700	T 2
	UUBAR FS						UUBAR FS
	P1 FS						P1 FS
	LOSS PARA FS						LOSS PARA FS

ROTOR							
	PCT SPAN	90.07	70.43	50.34	30.47	10.16	PCT SPAN
	DIA	16.960	17.010	18.700	19.580	20.480	DIA
ROTOR -L.E.	BETA 2	13.795	15.026	15.558	15.795	15.970	BETA 2
ROTOR -T.E.	BETA 3	45.159	39.963	36.029	37.680	40.200	BETA 3
	BETA(PR) 2	44.412	45.105	46.866	48.924	51.120	BETA(PR) 2
	BETA(PR) 3	5.449	14.940	22.116	27.759	33.184	BETA(PR) 3
	V 2	505.51	518.54	521.12	516.40	508.05	V 2
	V 3	772.01	744.47	707.93	675.15	635.85	V 3
	VZ 2	490.88	500.31	500.52	494.25	484.76	VZ 2
	VZ 3	544.30	570.30	556.05	531.05	483.34	VZ 3
	V-THETA 2	120.52	134.30	139.35	139.81	136.78	V-THETA 2
	V-THETA 3	547.38	477.91	435.30	413.19	408.45	V-THETA 3
	V(PR) 2	687.2	709.2	733.2	754.1	774.4	V(PR) 2
	V(PR) 3	540.9	540.8	602.3	602.7	580.9	V(PR) 3
	VTHETA PR2	-480.9	-502.1	-534.7	-567.0	-601.3	VTHETA PR2
	VTHETA PR3	-51.9	-152.2	-226.2	-279.5	-316.1	VTHETA PR3
	U 2	601.42	636.45	673.59	706.85	748.10	U 2
	U 3	599.30	630.08	661.57	692.70	724.54	U 3
	M 2	0.4624	0.4748	0.4773	0.4728	0.4646	M 2
	M 3	0.6962	0.6735	0.6399	0.6087	0.5704	M 3
	M(PR) 2	0.6280	0.6494	0.6715	0.6904	0.7069	M(PR) 2
	M(PR) 3	0.4932	0.5344	0.5444	0.5434	0.5210	M(PR) 3
	TURN(PR)	36.960	50.147	24.715	21.129	17.928	TURN(PR)
	UUBAR	0.1961	0.0577	0.0311	0.0577	0.1339	UUBAR

LOSS PARA	0.0700	0.0210	0.0114	0.0211	0.0484	LOSS PARA
DFAC	0.4264	0.3480	0.3353	0.3476	0.3974	DFAC
EFFP	0.8296	0.9386	0.9599	0.9214	0.8142	EFFP
EFF	0.8240	0.9367	0.9587	0.9192	0.8096	EFF
INCID	-3.631	-3.626	-2.816	-2.001	-2.393	INCID
DEVM	15.468	8.947	6.999	7.511	12.319	DEVM
P 2	14.570	14.656	14.672	14.655	14.619	P 2
P 3	18.318	18.258	17.980	17.692	17.349	P 3
T 2	518.700	518.700	518.700	518.700	518.700	T 2
T 3	561.240	554.590	551.060	549.900	550.820	T 3

STATOR							
	PCT SPAN	90.02	70.31	50.34	30.11	10.14	PCT SPAN
	DIA	16.880	17.030	18.390	19.160	19.920	DIA
STATOR-L.E.	BETA 3	44.829	39.588	37.597	37.509	39.771	BETA 3
STATOR-T.E.	BETA 4	11.274	11.754	12.714	14.180	14.592	BETA 4
	V 3	776.93	751.59	716.57	683.51	644.68	V 3
	V 4	709.33	710.85	693.04	667.14	636.11	V 4
	VZ 3	550.96	578.92	566.89	540.80	493.88	VZ 3
	VZ 4	695.01	695.67	675.28	645.46	613.52	VZ 4
	V-THETA 3	547.70	478.72	436.52	415.10	411.05	V-THETA 3
	V-THETA 4	138.67	144.74	152.35	163.08	159.71	V-THETA 4
	M 3	0.7011	0.6805	0.6483	0.6168	0.5788	M 3
	M 4	0.6349	0.6405	0.6254	0.6009	0.5706	M 4
	TURN(PR)	33.553	27.815	24.832	23.246	25.073	TURN(PR)
	UUBAR	0.0281	0.0246	0.0223	0.0409	0.0628	UUBAR
	LOSS PARA	0.0100	0.0091	0.0086	0.0163	0.0259	LOSS PARA
	DFAC	0.2786	0.2237	0.1915	0.1781	0.1833	DFAC
	EFFP	0.8613	0.8069	0.7101	0.2601	-1.0732	EFFP
	INCID	0.336	-1.806	-3.339	-4.715	-6.616	INCID
	DEVM	18.694	12.089	11.059	12.869	13.401	DEVM
	P 3	18.318	18.258	17.980	17.692	17.349	P 3
	P 4	18.174	18.139	17.881	17.529	17.127	P 4
	T 3	561.240	554.590	551.060	549.900	550.820	T 3
	T 4	561.240	554.590	551.060	549.900	550.820	T 4

Table C-4. Blade Element Performance (Continued)
Stage G, Rotor G - Stator G
Calculated Using Translated Values
Percent Equivalent Rotor Speed = 68.64 Equivalent Rotor Speed = 8075.00 Equivalent Weight Flow = 31.781 lb/sec
Uniform Inlet
U.S. Customary Units

INLET GUIDE VANE	PCT SPAN	89.86	69.09	47.80	27.87	9.29	PCT SPAN
	DIA	17.100	18.330	19.590	20.770	21.870	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	17.413	19.093	19.775	19.708	19.696	BETA 2
	V 1	305.46	324.93	329.98	323.87	308.16	V 1
	V 2	376.93	385.46	385.27	380.32	372.53	V 2
	VZ 1	305.40	324.40	326.62	321.58	305.00	VZ 1
	VZ 2	359.60	363.81	361.40	356.06	347.92	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	112.78	125.93	129.94	127.54	124.54	V-THETA 2
	M 1	0.2757	0.2935	0.2962	0.2926	0.2782	M 1
	M 2	0.3415	0.3494	0.3493	0.3447	0.3374	M 2
	TURN	-17.41	-19.07	-19.71	-19.59	-19.53	TURN
	UUBAR	0.0987	0.0635	0.0661	0.0639	0.0667	UUBAR
	DFAC	-0.085	-0.030	-0.008	-0.013	-0.040	DFAC
	EFFP	0.8458	0.8697	0.8512	0.8604	0.8775	EFFP
	INCID	-0.6600	-0.2900	0.0800	0.4100	0.7300	INCID
	DEVM	6.540	6.321	7.170	8.425	10.039	DEVM
	P 1	14.665	14.711	14.730	14.710	14.669	P 1
	P 2	14.571	14.657	14.672	14.656	14.618	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	518.700	518.700	518.700	518.700	518.700	T 2
	UUBAR FS						UUBAR FS
	PI FS						PI FS
	LOSS PARA FS						LOSS PARA FS
ROTOR	PCT SPAN	90.07	70.43	50.34	30.47	10.16	PCT SPAN
	DIA	16.960	17.810	18.700	19.580	20.480	DIA
ROTOR -L.E.	BETA 2	13.846	15.261	15.868	15.921	15.953	BETA 2
ROTOR -T.E.	BETA 3	47.491	42.455	40.723	40.522	43.065	BETA 3
	BETA(PR) 2	46.531	47.069	46.796	50.873	53.112	BETA(PR) 2
	BETA(PR) 3	6.293	15.920	22.856	28.716	34.554	BETA(PR) 3
	V 2	474.08	487.97	490.41	485.94	477.29	V 2
	V 3	735.37	709.04	679.07	649.10	611.12	V 3
	VZ 2	460.26	470.30	470.31	464.81	455.46	VZ 2
	VZ 3	490.88	522.87	513.81	491.86	444.52	VZ 3
	V-THETA 2	113.44	128.31	133.69	132.59	130.20	V-THETA 2
	V-THETA 3	542.07	478.37	442.30	420.42	417.47	V-THETA 3
	V(PR) 2	669.0	690.8	715.0	738.3	761.6	V(PR) 2
	V(PR) 3	499.9	544.2	558.9	563.2	542.7	V(PR) 3
	VTHETA PR2	-485.5	-505.5	-537.2	-571.4	-606.9	VTHETA PR2
	VTHETA PR3	-54.6	-149.1	-216.6	-269.5	-306.1	VTHETA PR3
	U 2	598.98	633.86	670.65	703.97	737.09	U 2
	U 3	596.86	627.51	658.87	689.88	721.59	U 3
	M 2	0.4325	0.4457	0.4480	0.4437	0.4355	M 2
	M 3	0.6602	0.6384	0.6110	0.5827	0.5459	M 3
	M(PR) 2	0.8104	0.8309	0.8531	0.8742	0.8945	M(PR) 2
	M(PR) 3	0.4488	0.4900	0.5029	0.5056	0.4848	M(PR) 3
	TURN(PR)	40.236	31.132	25.907	22.126	18.553	TURN(PR)
	UUBAR	0.1861	0.0533	0.0191	0.0407	0.1165	UUBAR
	LOSS PARA	0.0671	0.0193	0.0069	0.0148	0.0414	LOSS PARA
	DFAC	0.4819	0.4016	0.3860	0.3952	0.4454	DFAC
	EFFP	0.8446	0.9459	0.9707	0.9497	0.8520	EFFP
	EFF	0.8393	0.9442	0.9760	0.9482	0.8480	EFF
	INCID	-1.512	-1.662	-0.885	-0.050	-0.402	INCID
	DEVM	16.317	9.926	7.736	8.465	13.685	DEVM
	P 2	14.571	14.657	14.672	14.656	14.618	P 2
	P 3	18.396	18.353	18.187	17.962	17.654	P 3
	T 2	518.700	518.700	518.700	518.700	518.700	T 2
	T 3	561.260	555.160	552.330	551.430	552.590	T 3
STATOR	PCT SPAN	90.02	70.31	50.34	30.11	10.14	PCT SPAN
	DIA	16.880	17.630	18.390	19.160	19.920	DIA
STATOR-L.E.	BETA 3	47.169	42.094	40.283	40.140	42.634	BETA 3
STATOR-T.E.	BETA 4	11.611	12.187	13.406	14.842	15.136	BETA 4
	V 3	739.63	715.16	686.87	656.74	619.19	V 3
	V 4	640.98	651.40	637.82	619.53	576.54	V 4
	VZ 3	502.61	530.43	523.26	500.86	454.16	VZ 3
	VZ 4	633.71	636.48	619.74	597.62	554.67	VZ 4
	V-THETA 3	542.39	479.16	443.48	422.36	418.12	V-THETA 3
	V-THETA 4	130.21	137.40	147.72	158.37	150.04	V-THETA 4
	M 3	0.6644	0.6444	0.6186	0.5900	0.5535	M 3
	M 4	0.5752	0.5826	0.5714	0.5545	0.5133	M 4
	TURN(PR)	35.555	29.893	26.824	25.213	27.391	TURN(PR)
	UUBAR	0.0413	0.0290	0.0328	0.0341	0.1105	UUBAR
	LOSS PARA	0.0147	0.0167	0.0126	0.0135	0.0454	LOSS PARA
	DFAC	0.3280	0.2714	0.2436	0.2246	0.2574	DFAC
	EFFP	0.8517	0.8559	0.7961	0.7313	0.2615	EFFP
	INCID	2.676	0.700	-0.655	-2.086	-3.755	INCID
	DEVM	19.031	12.517	11.751	13.531	13.944	DEVM
	P 3	18.396	18.353	18.187	17.962	17.654	P 3
	P 4	18.201	18.224	18.051	17.833	17.788	P 4
	T 3	561.260	555.160	552.330	551.430	552.590	T 3
	T 4	561.260	555.160	552.330	551.430	552.590	T 4

Table C-4. Blade Element Performance (Continued)
Stage G, Rotor G - Stator G
Calculated Using Translated Values
Percent Equivalent Rotor Speed = 69.80 Equivalent Rotor Speed = 8094.00 Equivalent Weight Flow = 30.287 lb/sec
Uniform Inlet
U.S. Customary Units

INLET GUIDE VANE	PCT SPAN	89.66	84.09	47.80	27.67	9.29	PCT SPAN
	DIA	17.100	16.330	19.590	20.770	21.870	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	17.403	18.835	19.420	19.355	19.344	BETA 2
	V 1	291.02	307.08	312.29	309.43	299.82	V 1
	V 2	361.38	368.82	369.53	364.84	357.20	V 2
	VZ 1	290.96	306.58	311.00	307.24	296.73	VZ 1
	VZ 2	344.78	348.04	347.39	342.31	334.31	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	103.07	116.92	122.47	120.24	117.36	V-THETA 2
	M 1	0.2624	0.2772	0.2819	0.2793	0.2705	M 1
	M 2	0.3271	0.3340	0.3347	0.3303	0.3233	M 2
	TURN	-17.40	-18.81	-19.36	-19.24	-19.18	TURN
	UUBAR	0.0862	0.0511	0.0466	0.0567	0.0810	UUBAR
	DFAC	-0.042	-0.045	-0.025	-0.020	-0.027	DFAC
	EFFP	0.6666	0.8998	0.8987	0.8770	0.8425	EFFP
	INCID	-0.6600	-0.2900	0.0800	0.4100	0.7300	INCID
	DEVM	0.550	0.574	7.524	8.777	10.388	DEVM
	P 1	14.646	14.700	14.719	14.710	14.688	P 1
	P 2	14.569	14.661	14.682	14.666	14.629	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	518.700	518.700	518.700	518.700	518.700	T 2
	UUBAR FS						UUBAR FS
	PI FS						PI FS
	LOSS PARA FS						LOSS PARA FS
ROTOR	PCT SPAN	90.07	70.43	50.34	30.47	10.16	PCT SPAN
	DIA	16.940	17.610	18.700	19.560	20.480	DIA
ROTOR-L.E.	BETA 2	13.687	15.117	15.648	15.699	15.731	BETA 2
ROTOR-T.E.	BETA 3	49.748	44.874	42.042	41.885	44.607	BETA 3
	BETA(PR) 2	48.196	48.899	50.535	52.550	54.741	BETA(PR) 2
	BETA(PR) 3	7.366	17.150	23.994	29.312	36.657	BETA(PR) 3
	V 2	452.97	465.11	468.59	464.45	455.96	V 2
	V 3	707.16	686.02	661.30	638.90	608.06	V 3
	VZ 2	439.68	448.56	449.87	444.73	435.58	VZ 2
	VZ 3	456.92	452.64	490.35	474.22	431.12	VZ 3
	V-THETA 2	108.70	121.17	126.01	125.00	122.69	V-THETA 2
	V-THETA 3	539.69	476.96	442.17	425.26	425.74	V-THETA 3
	V(PR) 2	659.6	682.7	708.7	733.0	756.6	V(PR) 2
	V(PR) 3	460.7	516.0	538.0	546.1	527.0	V(PR) 3
	VTHETA PR2	-491.7	-514.2	-546.4	-580.6	-616.1	VTHETA PR2
	VTHETA PR3	-96.6	-152.6	-218.3	-266.2	-298.0	VTHETA PR3
	U 2	600.36	635.35	672.43	705.63	738.83	U 2
	U 3	593.27	628.99	660.42	691.50	723.29	U 3
	M 2	0.4126	0.4240	0.4273	0.4234	0.4154	M 2
	M 3	0.6326	0.6157	0.5934	0.5721	0.5419	M 3
	M(PR) 2	0.6008	0.6223	0.6463	0.6682	0.6893	M(PR) 2
	M(PR) 3	0.4121	0.4631	0.4827	0.4890	0.4697	M(PR) 3
	TURN(PR)	40.887	31.733	26.510	23.211	20.083	TURN(PR)
	UUBAR	0.2178	0.0659	0.0198	0.0333	0.1062	UUBAR
	LOSS PARA	0.0775	0.0237	0.0072	0.0120	0.0377	LOSS PARA
	DFAC	0.5353	0.4389	0.4143	0.4212	0.4728	DFAC
	EFFP	0.8258	0.9360	0.9764	0.9606	0.8748	EFFP
	EFF	0.8200	0.9339	0.9756	0.9594	0.8711	EFF
	INCID	0.153	0.166	0.854	1.630	1.231	INCID
	DEVM	17.325	11.156	8.874	9.058	13.788	DEVM
	P 2	14.589	14.661	14.682	14.666	14.629	P 2
	P 3	18.355	18.390	18.304	18.187	17.973	P 3
	T 2	518.700	518.700	518.700	518.700	518.700	T 2
	T 3	561.590	555.850	553.270	552.980	554.770	T 3
STATOR	PCT SPAN	90.02	70.31	50.34	30.11	10.14	PCT SPAN
	DIA	16.880	17.630	18.390	19.160	19.920	DIA
STATOR-L.E.	BETA 3	49.422	43.714	41.602	41.490	44.160	BETA 3
STATOR-T.E.	BETA 4	11.572	12.358	13.601	15.906	16.919	BETA 4
	V 3	711.01	691.67	668.65	646.30	616.06	V 3
	V 4	600.14	604.59	596.26	579.90	556.06	V 4
	VZ 3	462.48	499.72	499.33	483.05	440.69	VZ 3
	VZ 4	587.92	590.35	578.89	556.55	530.24	VZ 4
	V-THETA 3	540.00	477.77	443.35	427.22	427.96	V-THETA 3
	V-THETA 4	120.39	129.34	140.06	158.60	161.29	V-THETA 4
	M 3	0.6363	0.6211	0.6004	0.5792	0.5494	M 3
	M 4	0.5310	0.5380	0.5315	0.5163	0.4932	M 4
	TURN(PR)	37.848	31.336	27.947	25.501	27.140	TURN(PR)
	UUBAR	0.0212	0.0237	0.0263	0.0454	0.0651	UUBAR
	LOSS PARA	0.0076	0.0088	0.0101	0.0179	0.0265	LOSS PARA
	DFAC	0.3706	0.3179	0.2896	0.2764	0.2860	DFAC
	EFFP	0.9369	0.9136	0.8889	0.7950	0.6879	EFFP
	INCID	4.929	2.319	0.663	-0.737	-2.229	INCID
	DEVM	18.992	12.693	11.946	14.592	15.721	DEVM
	P 3	18.355	18.390	18.304	18.187	17.973	P 3
	P 4	18.262	18.290	18.200	18.019	17.756	P 4
	T 3	561.590	555.850	553.270	552.980	554.770	T 3
	T 4	561.590	555.850	553.270	552.990	554.770	T 4

ORIGINAL PAGE IS OF POOR QUALITY

Table C-4. Blade Element Performance (Continued)
Stage G, Rotor G - Stator G
Calculated Using Translated Values
Percent Equivalent Rotor Speed = 69.86 Equivalent Rotor Speed = 8101.00 Equivalent Weight Flow = 28.68 lb/sec
Uniform Inlet
U.S. Customary Units

INLET GUIDE VANE	PCT SPAN	89.66	69.09	47.80	27.87	9.29	PCT SPAN
	DIA	17.100	18.330	19.590	20.770	21.870	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	17.579	18.820	19.492	19.427	19.416	BETA 2
	V 1	274.74	291.35	291.70	287.28	280.08	V 1
	V 2	334.53	342.77	343.28	339.27	331.36	V 2
	VZ 1	274.69	290.87	290.50	285.26	277.18	VZ 1
	VZ 2	310.86	324.04	322.58	318.18	310.00	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	101.07	110.44	114.18	112.22	109.26	V-THETA 2
	M 1	0.2476	0.2628	0.2631	0.2590	0.2525	M 1
	M 2	0.3024	0.3099	0.3104	0.3067	0.2994	M 2
	TURN	-17.58	-18.80	-19.43	-19.31	-19.25	TURN
	UUBAR	0.1064	0.0656	0.0480	0.0435	0.0821	UUBAR
	DFAC	-0.070	-0.024	-0.018	-0.021	-0.020	DFAC
	EFFP	0.8207	0.8980	0.8923	0.9035	0.8337	EFFP
	INCID	-0.6600	-0.2900	0.0800	0.4160	0.7300	INCID
	DEVM	0.374	0.594	7.453	8.705	10.317	DEVM
	P 1	14.660	14.710	14.714	14.700	14.686	P 1
	P 2	14.593	14.665	14.681	14.671	14.633	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	518.700	518.700	518.700	518.700	518.700	T 2
	UUBAR FS						UUBAR FS
	P1 FS						P1 FS
	LOSS PARA FS						LOSS PARA FS
ROTOR	PCT SPAN	90.07	70.43	50.34	30.47	10.16	PCT SPAN
	DIA	16.940	17.810	18.700	19.580	20.480	DIA
ROTOR -L.E.	BETA 2	14.101	15.190	15.797	15.847	15.879	BETA 2
ROTOR -T.E.	BETA 3	53.460	46.504	45.300	45.012	48.177	BETA 3
	BETA(PR) 2	50.986	51.624	53.224	55.122	57.289	BETA(PR) 2
	BETA(PR) 3	5.776	17.508	24.454	29.917	35.337	BETA(PR) 3
	V 2	417.13	429.90	432.83	429.50	420.66	V 2
	V 3	693.12	668.19	642.23	622.45	596.52	V 3
	VZ 2	404.52	414.47	415.24	410.97	401.56	VZ 2
	VZ 3	412.41	459.72	451.10	439.19	396.33	VZ 3
	V-THETA 2	101.01	112.53	117.47	116.65	114.23	V-THETA 2
	V-THETA 3	557.05	484.51	455.86	439.38	442.91	V-THETA 3
	V(PR) 2	642.6	667.9	694.4	720.0	744.9	V(PR) 2
	V(PR) 3	414.6	462.4	496.7	508.8	488.5	V(PR) 3
	VTHETA PR2	-499.3	-573.4	-599.5	-589.6	-645.2	VTHETA PR2
	VTHETA PR3	-41.7	-145.0	-205.1	-252.7	-281.0	VTHETA PR3
	U 2	660.90	635.90	673.01	706.24	739.47	U 2
	U 3	596.78	629.53	660.99	692.10	723.41	U 3
	M 2	0.3789	0.3909	0.3936	0.3905	0.3822	M 2
	M 3	0.6177	0.5975	0.5737	0.5555	0.5294	M 3
	M(PR) 2	0.5838	0.6073	0.6315	0.6547	0.6708	M(PR) 2
	M(PR) 3	0.3694	0.4314	0.4437	0.4537	0.4335	M(PR) 3
	TURN(PR)	45.205	34.100	28.742	25.184	21.960	TURN(PR)
	UUBAR	0.2436	0.0714	0.0434	0.0489	0.1206	UUBAR
	LOSS PARA	0.0869	0.0257	0.0156	0.0175	0.0425	LOSS PARA
	DFAC	0.0084	0.4859	0.4743	0.4755	0.5313	DFAC
	EFFP	0.8254	0.9366	0.9552	0.9482	0.8726	EFFP
	EFF	0.8193	0.9338	0.9537	0.9465	0.8685	EFF
	INCID	2.943	2.094	3.545	4.206	3.786	INCID
	DEVM	15.798	11.514	9.333	9.662	14.466	DEVM
	P 2	14.593	14.665	14.681	14.671	14.633	P 2
	P 3	18.580	18.585	18.491	18.430	18.287	P 3
	T 2	518.700	518.700	518.700	518.700	518.700	T 2
	T 3	563.990	557.600	555.770	555.610	557.970	T 3
STATOR	PCT SPAN	90.02	70.31	50.34	30.11	10.14	PCT SPAN
	DIA	16.880	17.830	18.390	19.160	19.920	DIA
STATOR-L.E.	BETA 3	53.120	46.149	44.823	44.603	47.697	BETA 3
STATOR-T.E.	BETA 4	13.157	11.662	14.673	15.976	18.223	BETA 4
	V 3	696.49	673.90	649.20	629.93	604.21	V 3
	V 4	540.21	551.90	545.08	531.99	514.44	V 4
	VZ 3	416.10	406.57	454.91	447.57	403.64	VZ 3
	VZ 4	533.80	539.47	526.71	510.39	492.32	VZ 4
	V-THETA 3	557.38	489.33	457.08	441.41	445.74	V-THETA 3
	V-THETA 4	124.77	113.31	137.92	146.14	143.25	V-THETA 4
	M 3	0.6212	0.6026	0.5804	0.5621	0.5366	M 3
	M 4	0.4817	0.4876	0.4625	0.4705	0.4533	M 4
	TURN(PR)	39.967	34.247	30.098	28.541	31.370	TURN(PR)
	UUBAR	0.0366	0.0331	0.0274	0.0477	0.0621	UUBAR
	LOSS PARA	0.0129	0.0122	0.0105	0.0188	0.0254	LOSS PARA
	DFAC	0.4391	0.3917	0.3566	0.3510	0.3662	DFAC
	EFFP	0.9176	0.9087	0.9185	0.8527	0.7981	EFFP
	INCID	8.033	4.735	3.884	2.375	1.308	INCID
	DEVM	20.276	12.198	13.017	14.664	15.028	DEVM
	P 3	18.580	18.585	18.491	18.430	18.287	P 3
	P 4	18.430	18.451	18.388	18.260	18.085	P 4
	T 3	563.990	557.600	555.770	555.610	557.970	T 3
	T 4	563.990	557.600	555.770	555.610	557.970	T 4

Table C-4. Blade Element Performance (Continued)
Stage G, Rotor G - Stator G
Calculated Using Translated Values
Percent Equivalent Rotor Speed = 69.78 Equivalent Rotor Speed = 8092.00 Equivalent Weight Flow = 27.121 lb/sec
Uniform Inlet
U.S. Customary Units

INLET GUIDE VANE	PCT SPAN	89.86	69.09	47.80	27.87	4.25	PCT SPAN
	DIA	17.100	18.330	19.590	20.770	21.870	DIA
I.G.V.-L.E.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-T.E.	BETA 2	17.216	18.402	19.381	19.512	19.502	BETA 2
	V 1	253.03	276.45	279.13	275.04	260.42	V 1
	V 2	316.35	325.32	325.87	321.26	314.18	V 2
	VZ 1	252.99	276.00	277.97	273.10	257.73	VZ 1
	VZ 2	302.13	308.30	306.42	301.13	293.77	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	93.62	102.57	107.79	106.71	104.04	V-THETA 2
	M 1	0.2278	0.2491	0.2516	0.2479	0.2345	M 1
	M 2	0.2857	0.2939	0.2944	0.2902	0.2837	M 2
	TURN	-17.21	-18.38	-19.32	-19.40	-19.34	TURN
	UUBAR	0.0984	0.0726	0.0696	0.0782	0.0764	UUBAR
	DFAC	-0.101	-0.028	-0.011	-0.009	-0.034	DFAC
	EFFP	0.8542	0.8449	0.8428	0.8271	0.8595	EFFP
	INCID	-0.6600	-0.2900	0.0800	0.4100	0.7300	INCID
	DEVM	6.736	7.011	7.563	8.620	10.231	DEVM
	P 1	14.645	14.709	14.727	14.711	14.678	P 1
	P 2	14.594	14.664	14.678	14.663	14.634	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	518.700	518.700	518.700	518.700	518.700	T 2
	UUBAR FS						UUBAR FS
	P1 FS						P1 FS
	LOSS PARA FS						LOSS PARA FS
ROTOR	PCT SPAN	90.07	70.43	50.34	30.47	10.14	PCT SPAN
	DIA	16.940	17.810	18.700	19.580	20.440	DIA
ROTOR -L.E.	BETA 2	13.859	14.906	15.762	15.672	16.004	BETA 2
ROTOR -T.E.	BETA 3	55.254	48.386	47.206	47.152	52.040	BETA 3
	BETA(PR) 2	52.975	53.504	55.009	56.900	58.544	BETA(PR) 2
	BETA(PR) 3	5.154	17.253	24.180	29.728	36.109	BETA(PR) 3
	V 2	393.18	406.70	409.51	405.30	397.50	V 2
	V 3	685.07	659.50	636.41	618.00	586.23	V 3
	VZ 2	381.69	392.62	392.93	387.57	374.23	VZ 2
	VZ 3	390.43	437.81	431.79	419.21	384.53	VZ 3
	V-THETA 2	94.17	104.51	110.91	110.93	106.77	V-THETA 2
	V-THETA 3	562.90	492.86	466.39	451.44	460.85	V-THETA 3
	V(PR) 2	633.9	660.4	685.9	710.6	736.6	V(PR) 2
	V(PR) 3	392.1	458.8	474.4	484.7	447.4	V(PR) 3
	VTHETA PR2	-506.1	-530.7	-561.4	-594.5	-629.9	VTHETA PR2
	VTHETA PR3	-35.2	-136.0	-193.9	-239.4	-262.3	VTHETA PR3
	U 2	600.24	635.19	672.26	705.45	738.64	U 2
	U 3	598.12	628.84	660.26	691.33	723.11	U 3
	M 2	0.3566	0.3692	0.3718	0.3679	0.3606	M 2
	M 3	0.6092	0.5882	0.5672	0.5497	0.5185	M 3
	M(PR) 2	0.5750	0.5995	0.6228	0.6453	0.6685	M(PR) 2
	M(PR) 3	0.3486	0.4092	0.4228	0.4312	0.3957	M(PR) 3
	TURN(PR)	47.818	36.236	30.803	27.154	22.857	TURN(PR)
	UUBAR	0.2413	0.0764	0.0407	0.0464	0.1493	UUBAR
	LOSS PARA	0.0862	0.0275	0.0147	0.0167	0.0521	LOSS PARA
	DFAC	0.6461	0.5252	0.5102	0.5132	0.5956	DFAC
	EFFP	0.8356	0.9357	0.9607	0.9546	0.8549	EFFP
	EFF	0.8296	0.9334	0.9593	0.9530	0.8500	EFF
	INCID	4.932	4.775	5.332	5.988	5.452	INCID
	DEVM	15.174	11.259	9.059	9.474	15.235	DEVM
	P 2	14.594	14.664	14.678	14.663	14.634	P 2
	P 3	18.769	18.767	18.721	18.680	18.478	P 3
	T 2	518.700	518.700	518.700	518.700	518.700	T 2
	T 3	565.300	559.280	557.620	557.680	560.750	T 3
STATOR	PCT SPAN	90.02	70.31	50.34	30.11	10.14	PCT SPAN
	DIA	16.880	17.630	18.390	19.160	19.920	DIA
STATOR-L.E.	BETA 3	54.878	47.994	46.714	46.720	51.518	BETA 3
STATOR-T.E.	BETA 4	14.819	11.834	14.275	15.919	16.190	BETA 4
	V 3	688.63	664.65	643.14	624.87	593.76	V 3
	V 4	513.80	517.21	511.94	500.48	486.63	V 4
	VZ 3	396.17	444.61	440.46	427.56	368.68	VZ 3
	VZ 4	496.69	506.02	495.58	480.30	465.78	VZ 4
	V-THETA 3	563.23	493.70	467.64	454.03	463.79	V-THETA 3
	V-THETA 4	131.41	106.02	126.09	136.99	135.24	V-THETA 4
	M 3	0.6126	0.5931	0.5736	0.5562	0.5254	M 3
	M 4	0.4497	0.4553	0.4512	0.4406	0.4268	M 4
	TURN(PR)	40.057	36.141	32.386	30.717	35.227	TURN(PR)
	UUBAR	0.0480	0.0444	0.0480	0.0683	0.0529	UUBAR
	LOSS PARA	0.0168	0.0165	0.0183	0.0269	0.0216	LOSS PARA
	DFAC	0.4820	0.4440	0.4160	0.4104	0.4206	DFAC
	EFFP	0.9057	0.9013	0.8844	0.8303	0.8551	EFFP
	INCID	10.385	6.600	5.775	4.492	5.133	INCID
	DEVM	22.239	12.169	12.619	14.605	14.995	DEVM
	P 3	18.769	18.767	18.721	18.680	18.478	P 3
	P 4	18.567	18.590	18.541	18.438	18.310	P 4
	T 3	565.300	559.280	557.620	557.680	560.750	T 3
	T 4	565.300	559.280	557.620	557.680	560.750	T 4

ORIGINAL PAGE IS
OF POOR QUALITY

Table C-4. Blade Element Performance (Continued)
Stage G, Rotor G - Stator G
Calculated Using Translated Values
Percent Equivalent Rotor Speed = 69.78 Equivalent Rotor Speed = 8092.00 Equivalent Weight Flow = 25.096 lb/sec
Uniform Inlet
U.S. Customary Units

INLET GUIDE VANE	PCT SPAN	89.86	69.09	47.60	27.87	9.29	PCT SPAN
	DIA	17.100	18.330	19.59	20.770	21.870	DIA
I.G.V.-Lat.	BETA 1	-0.000	-0.000	-0.000	-0.000	-0.000	BETA 1
I.G.V.-Tot.	BETA 2	16.996	18.728	19.223	19.160	19.152	BETA 2
	V 1	238.37	256.65	255.31	249.28	239.72	V 1
	V 2	291.78	301.45	301.22	297.46	291.19	V 2
	VZ 1	238.33	256.23	254.25	247.52	237.25	VZ 1
	VZ 2	279.60	285.14	283.52	279.41	272.85	VZ 2
	V-THETA 1	-0.00	-0.00	-0.00	-0.00	-0.00	V-THETA 1
	V-THETA 2	85.27	96.07	98.86	97.08	94.76	V-THETA 2
	M 1	0.2149	0.2311	0.2299	0.2244	0.2157	M 1
	M 2	0.2634	0.2720	0.2718	0.2683	0.2626	M 2
	TURN	-16.99	-18.70	-19.16	-19.05	-18.99	TURN
	UUBAR	0.1559	0.0970	0.0773	0.0672	0.0792	UUBAR
	DFAC	-0.080	-0.023	-0.023	-0.034	-0.049	DFAC
	EFFP	0.7653	0.8004	0.8364	0.8657	0.8599	EFFP
	INCID	-0.6000	-0.2900	0.0800	0.4100	0.7300	INCID
	DEVM	0.957	6.680	7.721	8.971	10.574	DEVM
	P 1	14.066	14.712	14.713	14.697	14.678	P 1
	P 2	14.594	14.063	14.672	14.663	14.641	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	518.700	518.700	518.700	518.700	518.700	T 2
	UUBAR FS						UUBAR FS
	P1 FS						P1 FS
	LOSS PARA FS						LOSS PARA FS
ROTOR	PCT SPAN	90.07	70.43	50.34	30.47	10.16	PCT SPAN
	DIA	16.940	17.810	18.700	19.580	20.460	DIA
ROTOR-Lat.	BETA 2	13.735	15.278	15.703	15.753	15.780	BETA 2
ROTOR-Tot.	BETA 3	50.333	51.312	49.670	49.565	55.496	BETA 3
	BETA(PR) 2	55.760	56.013	57.622	59.383	61.274	BETA(PR) 2
	BETA(PR) 3	4.107	16.008	23.790	29.731	36.556	BETA(PR) 3
	V 2	301.31	375.27	376.93	373.72	367.03	V 2
	V 3	685.87	655.34	630.99	612.36	587.93	V 3
	VZ 2	300.95	361.83	361.78	357.76	350.54	VZ 2
	VZ 3	380.21	409.50	407.89	396.26	325.16	VZ 3
	V-THETA 2	85.78	98.50	101.71	100.92	99.06	V-THETA 2
	V-THETA 3	570.62	511.55	480.45	465.02	462.80	V-THETA 3
	V(PR) 2	672.8	647.5	676.2	703.5	730.7	V(PR) 2
	V(PR) 3	381.2	426.4	446.8	458.7	467.0	V(PR) 3
	VTHETA PR2	-514.5	-530.7	-570.6	-604.5	-639.6	VTHETA PR2
	VTHETA PR3	-27.3	-117.5	-179.8	-226.3	-241.1	VTHETA PR3
	U 2	807.24	635.19	672.26	705.45	738.64	U 2
	U 3	596.12	628.84	660.26	691.33	723.11	U 3
	M 2	0.3271	0.3401	0.3415	0.3386	0.3324	M 2
	M 3	0.6090	0.5829	0.5607	0.5430	0.5136	M 3
	M(PR) 2	0.5638	0.5866	0.6127	0.6373	0.6617	M(PR) 2
	M(PR) 3	0.3385	0.3792	0.3971	0.4063	0.3585	M(PR) 3
	TURN(PR)	51.590	39.490	33.808	29.641	24.745	TURN(PR)
	UUBAR	0.2222	0.0966	0.0574	0.0641	0.1854	UUBAR
	LOSS PARA	0.0795	0.0350	0.0207	0.0230	0.0643	LOSS PARA
	DFAC	0.0665	0.4601	0.5575	0.5593	0.0657	DFAC
	EFFP	0.8585	0.9271	0.9511	0.9423	0.8368	EFFP
	EFF	0.8550	0.9243	0.9493	0.9401	0.8310	EFF
	INCID	7.657	7.285	7.748	8.478	7.787	INCID
	DEVM	14.126	10.014	8.670	9.477	15.682	DEVM
	P 2	14.594	14.662	14.672	14.663	14.641	P 2
	P 3	19.665	18.999	18.950	18.918	18.752	P 3
	T 2	518.700	518.700	518.700	518.700	518.700	T 2
	T 3	566.950	561.610	560.140	560.360	564.430	T 3
STATOR	PCT SPAN	90.62	70.31	50.34	30.11	10.14	PCT SPAN
	DIA	16.880	17.830	18.390	19.160	19.920	DIA
STATOR-Lat.	BETA 3	55.941	50.683	49.143	49.106	55.415	BETA 3
STATOR-Tot.	BETA 4	17.869	14.355	14.432	18.572	18.961	BETA 4
	V 3	664.44	660.41	637.59	619.10	596.26	V 3
	V 4	475.39	482.21	478.01	469.27	460.10	V 4
	VZ 3	380.10	410.51	410.66	404.54	334.45	VZ 3
	VZ 4	454.94	466.98	461.78	448.66	433.73	VZ 4
	V-THETA 3	571.10	512.21	481.74	467.17	455.08	V-THETA 3
	V-THETA 4	144.20	119.51	121.42	133.57	147.01	V-THETA 4
	M 3	0.6124	0.5877	0.5669	0.5494	0.5204	M 3
	M 4	0.4147	0.4224	0.4142	0.4112	0.4014	M 4
	TURN(PR)	38.071	36.510	34.360	32.452	36.366	TURN(PR)
	UUBAR	0.1074	0.0830	0.0834	0.0985	0.0792	UUBAR
	LOSS PARA	0.0371	0.0304	0.0316	0.0367	0.0319	LOSS PARA
	DFAC	0.5358	0.4984	0.4758	0.4684	0.4078	DFAC
	EFFP	0.8200	0.8430	0.8305	0.7922	0.8173	EFFP
	INCID	11.449	9.489	8.204	8.280	9.036	INCID
	DEVM	21.068	14.089	13.075	15.257	17.757	DEVM
	P 3	19.665	18.999	18.950	18.918	18.752	P 3
	P 4	18.007	18.671	18.640	18.572	18.401	P 4
	T 3	566.950	561.610	560.140	560.360	564.430	T 3
	T 4	566.950	561.610	560.140	560.360	564.430	T 4